

UML

UMASS LOWELL MAGAZINE

SPRING 2024



Friend OR Foe?
LIKE IT OR NOT, IT'S HERE



SUN BLOCK PARTY

A solar eclipse mesmerized millions across the United States on April 8. While UMass Lowell wasn't in the path of totality, students, faculty and staff donned their eclipse glasses and enjoyed a partial show (94%) under near-perfect conditions at viewing parties across campus, including this one on the South Campus quad. The next total eclipse in New England isn't until May 1, 2079—when the Class of 2024 will be celebrating its 55th reunion.

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Brooks Automation + UMass Lowell
A partnership built on shared values and common bonds



A MESSAGE from the CHANCELLOR

Dear Alumni and Friends,

It's impossible to go a day without hearing about artificial intelligence—and it was impossible to fit into these pages all of the AI-related work being done by the UML community. It's an exciting time, and not surprisingly, our faculty across all fields are in the thick of it.

Whether they're using AI to speed up disease detection, to reduce suicide rates or to improve how well Alexa responds to our needs, they're working hard to build new technologies and study the long-term impacts. In our cover story, our experts weigh in on 11 ways AI is changing our lives.

As always, the rest of the magazine celebrates the innovation and accomplishments of our students, faculty and alumni. It also highlights some of the partnerships we have with industry, including a sneak peek at our transformational Lowell Innovation Network Corridor, a public-private venture that we believe will propel the city and the university into the future. Read all about it on page 6.

Wishing you all a wonderful summer!

Sincerely,

Julie Chen

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UML Magazine has been honored with multiple awards, including nods from APEX Awards for Publication Excellence, Bell Ringer Awards, CASE Excellence Awards, Collegiate Advertising Awards, Hermes Creative Awards, Higher Ed Marketing Awards, PR Daily Awards and PR Daily Nonprofit PR Awards.



EDITOR'S NOTE: Please send comments to Editor Sarah McAdams Corbett at Sarah_Corbett@uml.edu. Submit class notes at uml.edu/updateyourinfo

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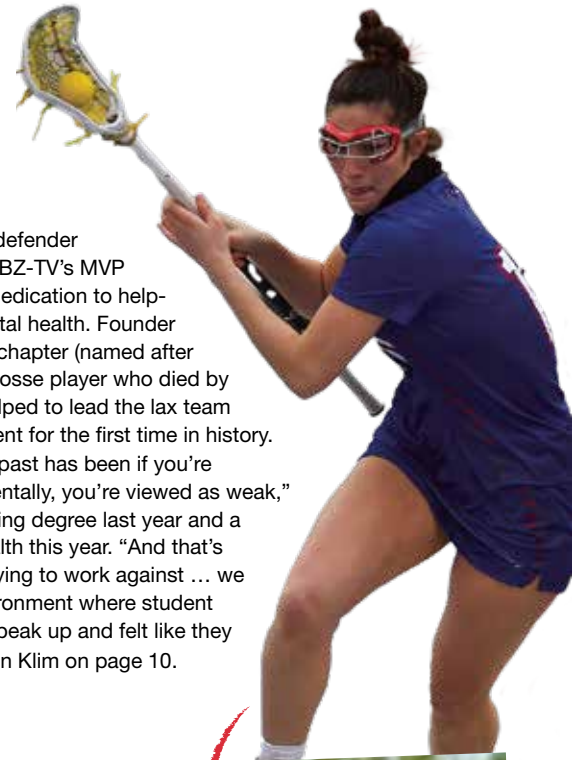
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TRENDING @ UML



MEANT TO BEE

A new mural on University Crossing, facing Merrimack Street, is creating quite a buzz. The three-story work is a collaboration between professional muralists Adam O'Day and Felipe Ortiz for the city-wide initiative ArtUp Lowell. The artists wanted the mural to have a theme of teamwork and learning, and "who is better than bees at teamwork?" O'Day asks.



MVP, MVP, MVP!

Fifth-year women's lacrosse defender **Caroline Klim** was named WBZ-TV's MVP of the Week recently for her dedication to helping athletes nurture their mental health. Founder of UML's Morgan's Message chapter (named after Morgan Rodgers, a Duke lacrosse player who died by suicide in 2019), Klim also helped to lead the lax team to the America East tournament for the first time in history. "I think the narrative in years past has been if you're struggling with something mentally, you're viewed as weak," said Klim, who earned a nursing degree last year and a master's degree in public health this year. "And that's what Morgan's Message is trying to work against ... we just wanted to create an environment where student athletes felt that they could speak up and felt like they could get help." Read more on Klim on page 10.



And speaking of sports with sticks,

the ice at the Tsongas Center at UMass Lowell is home to the newest Boston pro sports team. The inaugural season of the Professional Women's Hockey League launched last August with six teams featuring some of the best women's hockey players in the world. The PWHL gained traction quickly, repeatedly breaking attendance records for pro women's hockey games. Boston advanced to the finals in May, losing to Minnesota in game five of an exciting championship series. Hying the Lowell-based franchise the whole way: English alum Carter Hochman '19, former UML men's soccer goalie, who is the social media and marketing associate for PWHL Boston.

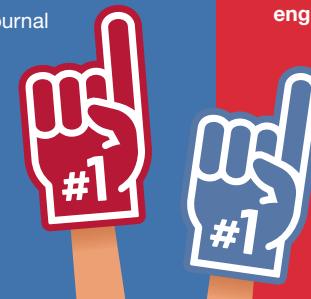


ALSO CALLING THE TSONGAS HOME THIS SEASON? PRO INDOOR FOOTBALL TEAM THE MASSACHUSETTS PIRATES.



Have you heard? UML is No. 1 in the state ...

The Wall Street Journal said so: Best public university for student outcomes, diversity and learning environment.



... and we're No. 1 in the nation

to offer an **undergraduate sports engineering program**, hitting the sweet spot with students who love sports and also aspire to be engineers. The minor was developed by Engineering Dean James Sherwood, director of UML's Baseball Research Center (and editor-in-chief of the Journal of Sports Engineering and Technology), and Patrick Drane '00, '03, the center's assistant director.

... and No. 1 in the WORLD?

Yep—at least when it comes to the university's **Model U.N. team**, which won the best delegation award at a competition in Edinburgh, Scotland, over spring break. Led by International Relations Club advisor Jason Carter '04, '06, '21, the program has been racking up awards since its founding in 1984 (read a tribute to late co-founder Dean Bergeron on page 66).

➔ CHECK OUT MORE TRENDING
UMass Lowell news at uml.edu/news.

Top: An artist's rendering of proposed mixed-use retail and housing along Riverwalk Way. Bottom left: The locations and phases of LINC. Bottom right: Gov. Maura Healey, right, and Lt. Gov. Kim Driscoll visited campus to announce the project and pledge financial support from the state.

LINC DEVELOPMENT TO PROPEL LOWELL INTO THE FUTURE

\$800 Million Project to Bring New Commercial Research and Office Space, Housing and More

BY JILL GAMBON

On one side, the curving Merrimack River frames a swath of the city that stretches from the tip of UMass Lowell's East Campus to the edge of downtown Lowell. The area, which is dotted with renovated mill buildings, historic canals, student housing and athletic facilities, shops and restaurants, hosts both vestiges of Lowell's Industrial Age past and its vibrant present as home to a national research university. It is also ground zero for Lowell's future.

Welcome to the Lowell Innovation Network Corridor, or LINC, a public-private venture that plans to add over 1 million square feet of new lab and office space, hundreds of units of housing, new retail and entertainment venues and thousands of jobs. The ambitious plan promises to propel downtown Lowell into a bustling center of cutting-edge businesses and updated amenities for an expanded workforce.

"This is nothing short of a transformational economic development project for Lowell, the region and Massachusetts," Gov. Maura Healey said at a March 28 press conference at UMass Lowell to announce the development.

The \$800 million-plus project is being spearheaded by UMass Lowell, the UMass Building Authority and the city of Lowell, with significant support from Healey's administration and the federal delegation. Private developers GMH Communities and Wexford are partnering with the university on the development and have committed to investing about \$600 million.

The project is expected to generate over \$3.7 billion in economic activity and create 2,000 permanent jobs over the next decade. It will also create 1,300 construction jobs and result in nearly 500 units of new rental housing in Lowell and a new student residence hall. It will also create several million dollars in new annual property tax revenues for the city.

A cornerstone of the LINC development will be two new commercial buildings on East Campus, one of which will be the future home of Draper Laboratory's microelectronics division. This will create hundreds of new jobs in Lowell.

The project "has been a long time coming," says University of Massachusetts President Marty Meehan '78, who started the process of acquiring property related to the LINC



development while he was chancellor of UMass Lowell and who has remained engaged in those efforts as president. "The combination of a welcoming community like my hometown, a world-class public research university and an industry-leading employer like Draper—all supported by strategic state investment—will bring enormous economic benefits to the city of Lowell and its residents."

In addition to Healey and Meehan, joining Chancellor Julie Chen for the LINC announcement were Lt. Gov. Kim Driscoll, U.S. Rep. Lori Trahan, UMBA Executive Director Barbara Kroncke, Lowell City Manager Thomas A. Golden Jr. '94, '02, Draper President and CEO Jerry Wohletz and local officials, business owners and nonprofit leaders.

LINC is already supported by companies in such sectors as biotech and biomedical devices, robotics, electronics, sensors, climate-tech, space technology, cybersecurity, artificial intelligence and human performance, many of which will be tenants at the Wannalancit Business Center for "Phase 0," in advance of new construction.

The buildout of commercial laboratory and office space will accommodate companies that are collaborating with UMass Lowell researchers and that employ students and alumni, Chen says. The new housing will help keep highly skilled professionals in Lowell and expand options for living within walking distance to work for those employed in the area.



"UMass Lowell has a wide range of top-tier faculty expertise, and we partner with organizations across many different industries," says Chen. "Thanks to the Healey-Driscoll administration and partners like Draper, UMass Lowell will be able to dramatically scale up research around aerospace, human performance, advanced textiles, robotics, sensors and many other sectors that will bring a diversity of education and job opportunities to Lowell."

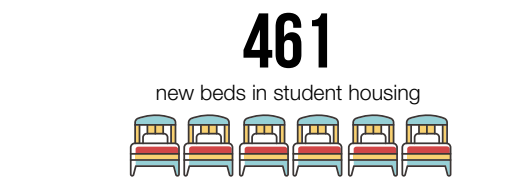
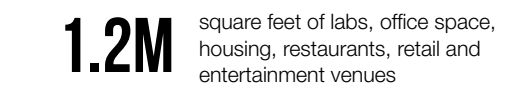
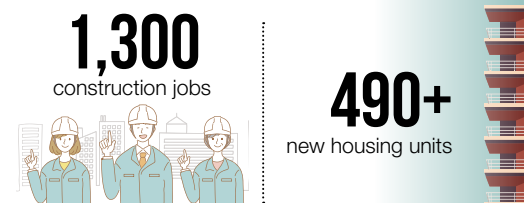
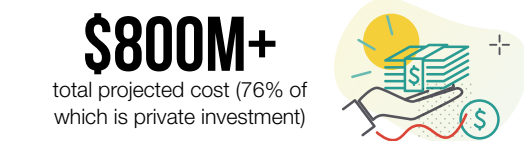
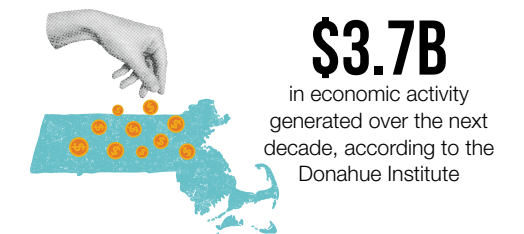
The development will roll out in phases, with the groundbreaking for the new housing and commercial space slated for next year. Chen says momentum has already started building.

"We're going to generate clusters of companies in different fields," she said. "They're going to offer great jobs, for everyone from high school graduates to CEOs. And that has a multiplier effect: Once you have people with great jobs and there's a wide range of housing options, that's going to help restaurants and retail and nonprofits and arts and entertainment."

For more information: www.lowell-inc.com

LINC Lowell Innovation Network Corridor BY THE NUMBERS

UMass Lowell is working with the city of Lowell to create the Lowell Innovation Network Corridor, or LINC, a new commercial real estate development on and around East Campus and stretching into downtown Lowell. LINC will transform the city's economic future and create opportunities for UML students and faculty.



\$4 Million Grant Brings Broadband (and UML Students) to Three Cities

"I'm so happy to be here!" exclaimed Nury Ortiz during a 10-week class on basic computer skills taught by a pair of UMass Lowell students at the Coalition for a Better Acre.

Ortiz and her husband, Luis Tabares, who emigrated from Colombia to Lowell 25 years ago, are learning how to write emails, store their photos, set up Zoom meetings and more on Chromebooks, which feature a suite of free Google applications.

A group of UMass Lowell and Fitchburg State University students were trained as "digital navigators" to teach the classes at nonprofits in Lowell, Fitchburg and Haverhill under a \$4 million grant awarded to the university by the Massachusetts Broadband Institute.

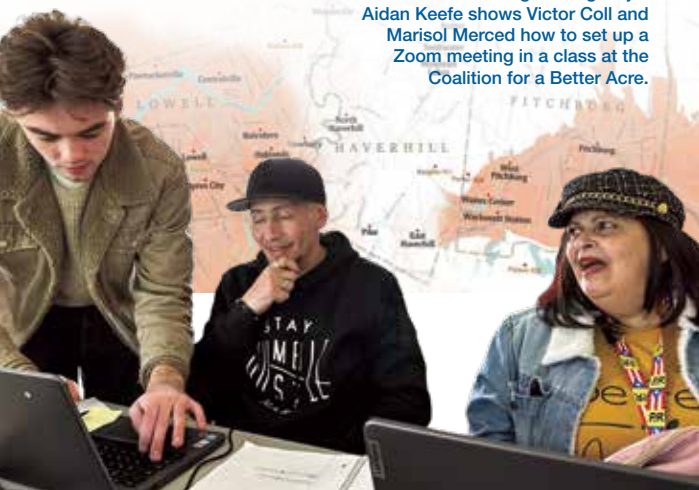
The two-year grant, part of a state and national effort to bridge the digital divide, is led by Economics Prof. Carol McDonough, who researches digital equity; Robin Toof, director of the Center for Community Research and Engagement; and Tom O'Donnell, UML's senior director of innovation and workforce development.

Much of the funding will pay for the installation of a broadband network in one neighborhood in each city, to which a few hundred low-income residents can connect at low or no cost, as well as some broadband access upgrades to public and community spaces.

Many of the pilot classes targeted older residents because, during the COVID-19 pandemic, their need for digital connections to friends, family, health care and other services became painfully clear, says Cecilia Gutierrez Yapur, director of programs at the CBA.

"Many of our seniors had been living their lives in person, and suddenly the whole world was digital," she says. "Now, they can communicate with their children and grandchildren, make an appointment, have a Facebook account. You can see how happy they are."

UML electrical engineering major Aidan Keefe shows Victor Coll and Marisol Merced how to set up a Zoom meeting in a class at the Coalition for a Better Acre.



Nursing Major Excels in the Ring and in the Classroom

Fighting in a recent New England Golden Gloves boxing match at Lowell Memorial Auditorium, E'Armani Corporan found himself on the defensive. But during the third round, the nursing major turned the bout around with a little help from his dad.

"When I compete, I always listen for my father's voice," he says. "He yelled from the sidelines, 'This kid doesn't have anything for you. Step aside and throw your right hand and it's yours.' That's exactly what I did."

A native of Lawrence, Massachusetts, Corporan won the 139-pound novice division regional championship by unanimous decision. Two weeks earlier, he also won in his weight class in the Central New England Golden Gloves.

The two fights were his first at the New England Golden Gloves, a competition that's been held every winter at Lowell Memorial Auditorium since 1945. Previous fighters who have gotten into the ring there include Rocky Marciano, Sugar Ray Leonard, Marvin Hagler and Micky Ward—all legendary champions in their pro careers.

Corporan also excels in school. He attended Abbott Lawrence Academy, a small, accelerated honors high school within the Lawrence High School campus. There, he took college courses, including anatomy and physiology, and found that he was drawn to the field of health sciences.

"I was naturally interested in nursing because the profession helps people, and I was doing well in my courses," says Corporan, a first-generation freshman who was named to the dean's list in his first semester. "I chose UMass Lowell because of the nursing program's excellent reputation and the university's diverse community. My experience so far has been great, with very supportive faculty." —KA



Loomis, Sayles Encourages Women Students at UML to Pursue Investment Management

Economics major Nikan Parsaei was on the lookout for an internship when she got an email from Assoc. Prof. of Economics Kelly Hellman letting her know about an opportunity at Loomis, Sayles & Co., the global investment firm based in Boston.

The company was inviting women majoring in economics to apply for its Undergraduate Women's Investment Network (UWIN) mentorship and internship program.

Parsaei applied and interviewed with the program's mentorship coordinator, Tricia Keefe '91—one of a dozen UML alumni working at the firm. Parsaei was accepted and became the fifth UML student to participate in UWIN since its launch in 2015.

"It was an opportunity that I'm not sure I would have come across if it wasn't for Professor Hellman reaching out to all of us women



Senior quantitative economics major Nikan Parsaei, right, chats with her mentor, Loomis Sayles Investment Director Elise Carner.

in the economics department and letting us know," says Parsaei, who commutes twice a week into Boston for the paid internship.

Economics alumna Sabrina Maldonado '21 participated in the program during her senior year. The relationships she built "paved the path" to her current job as a real estate private equity analyst with Liberty Mutual Investments in Boston.

"Knowing the fundamentals of investments is important, but ultimately, having good relationships with people you work with is immeasurable," says Maldonado.

THE UML GUARANTEE

Every first-time, first-year student is given the opportunity to pursue at least one career-connected experience during their undergraduate career—earning pay, credits or both before they graduate.



UML Named National Leader in Online Education

U.S. News & World Report ranks UMass Lowell's online master's programs as some of the best in the nation for 2024, including criminal justice (No. 3), education (No. 12) and computer information technology (No. 12). The online bachelor's degree program is ranked No. 31 in the nation.

The rankings specifically for military-connected students emphasize the need for this population to benefit from reputable distance education that is both affordable and accessible. UMass Lowell gets high rankings for such online programs for veterans, including the online master's in criminal justice (No. 1), the online master's in computer information technology (No. 14) and online bachelor's programs (No. 17).

1,450 military-connected students attend UMass Lowell, both on campus and online—many while deployed around the world.

New Partnership Admits Students to Both Bunker Hill Community College and UML

With an average age of 26, transfer students bring life experiences to the classroom, and they contribute to the diversity and vitality of UMass Lowell. Nearly one in 10 of those students enters the university from Bunker Hill Community College, the largest community college in the commonwealth.

Recently, the two institutions made that relationship official. As part of a joint admissions agreement, BHCC will encourage students who wish to pursue bachelor's or more advanced degrees to apply to UMass Lowell.

Upon admission to BHCC, a student who opts into the joint admissions agreement via the BHCC application will simultaneously be admitted to UMass Lowell. The student will be matriculated at UML upon graduation from BHCC if the defined requirements are met.

Referencing her experience as a first-generation college student, BHCC President Pam Eddinger said the joint admissions agreement is, and has been from the start, built to support students from all backgrounds who are pursuing higher education.

"If the support doesn't come from the college, it doesn't come at all," she said. "Bunker Hill and UMass Lowell have shared values, and this agreement truly creates a community of learning for students from all backgrounds."



BY ED BRENNEN

WHAT'S IN YOUR BAG?

UML WOMEN'S LACROSSE PLAYER **CAROLINE KLIM**

Caroline Klim '23, '24 saved her best road trip for last. As a fifth-year defender and co-captain on the women's lacrosse team, Klim helped the River Hawks advance to this spring's America East conference tournament for the first time in program history.

"It's so rewarding," says Klim, who had a fifth year of eligibility because of the pandemic. "This is what we worked for—not only during my five years here, but also the alumni that came before us."

Before the River Hawks hopped on the bus to Albany, New York, for the conference tournament, we asked Klim, who earned a master's degree in public health in May, to share what she was bringing in the Under Armor duffel bag that's emblazoned with her No. 10.

1. Sleep mask

"First and foremost, I'm a big bus sleeper, so I have my UMass Lowell women's lacrosse mask."

2. Apple AirPods Max headphones

"The bus gets really loud, so these are great for listening to music while I'm doing work. I also use them when I'm walking into a game. Once I get in the locker room, the headphones come off and the speaker goes on. The locker room is a team environment."

3. Blanket

"Shoutout to Julia Napolitano's mom, Joanne, who had these personalized blankets made as senior gifts last year. I use it for sleeping on the bus."

4. Flip-flops

"I refuse to walk around a hotel without flip-flops. It will be 20 degrees outside, and me and my roommate will always have flip-flops on."

5. MacBook Air laptop

"Because, obviously, we're student-athletes. The really long road trips to UMBC (University of Maryland, Baltimore County) and Binghamton are great. I can open the laptop, lock in and we're good. The bus is also a great time for me to work on my internship with Morgan's Message. They are very flexible with my hours."

6. Lululemon hat

"I'm a hat person on the bus."

7. Aquaphor Healing Ointment

"I carry this literally everywhere I go, and it's the most obnoxious size of it. I just always need my Aquaphor."

8. Liquid I.V. electrolyte drink mixes

"Electrolytes are a big one. I'll drink this the night before a game and then during a game."

9. Trader Joe's Super Sour Scandinavian Swimmers

"A sweet treat for the bus and the night before a game—that's always a good thing."

“
I'm sad that my college career is ending, but I am so fortunate for what this program has given me. I am such a better person because of this university.”

CAROLINE KLIM,
women's lacrosse co-captain, who earned a nursing degree last year and a public health master's degree in May
(read more about her on p. 5)



Object Lessons

In Writing Poetry, Prof. Sandra Lim Makes Sense of the World

English Prof. Sandra Lim writes poetry to “examine and make sense of life—my own life and the life of the world.”

An award-winning poet, Lim has taught at UMass Lowell since 2010. She’s published three books of poetry, and her work has appeared in *The New York Review of Books*, *Poetry*, *The New Republic* and *The New York Times Magazine*, among other publications. In December, she was named the 2023 Distinguished University Professor, UMass Lowell’s top academic honor for faculty.

We asked Lim to share a poem with our readers, and she selected “The Black Box,” which appears in her latest book “The Curious Thing.” The poem uses the metaphor of the black box, something with unknown or hidden internal functions, “as a way to broach the world, the people around us, and our own hearts,” she says.

BLACK BOX

We were in a small, grim café.

She sipped pure black droplets from a tiny cup.

Make him come back, she said, her voice like something brought up intact from the cold center of a lake.

It was the kind of story I like, and I wanted to get it right, for later:

The hot morning in the café, feeling encroached on by a cloud of dusty ferns and creepers

and the low earth of duty.

I can’t read a book all the way through, she said, and most days I’m only unhappy.

My heart is always with the lovers.

Pen Pal Program Brings Together UML Student-Athletes and Lowell Schoolchildren

Ben Greco had no idea that puffy stickers would make such a difference. In a letter to second-grader Ben Guedes, Greco, a finance and marketing major, adhered multiple 3D stickers to the paper. The letter Greco received in return from Guedes, who attends the S. Christa McAuliffe Elementary School in Lowell, warmed his heart.

“He loved the puffy stickers,” says Greco, who learned that Guedes is blind. “His aide had to translate my letter for him, and the stickers were the only thing he could feel. I now try to get as many puffy stickers on my letters as possible.”

Greco is one of 110 student-athletes at UMass Lowell who participate in a pen pal program with public schools in Lowell. The program is in its third year and is overseen by Athletic Academic Coordinator Sima Suon ’17.

“I’m a firm believer in making sure that the student-athletes serve the community that they’re reaping benefits from,” says Suon, a former javelin thrower on the UMass Lowell women’s track and field team.

The program has become so popular among student-athletes that within two days of seeking pen pal volunteers, Suon had to create a waitlist.

McAuliffe School second-grade teacher Tara Bedard ’02 has participated in the pen pal program since its inception and sees the impact it makes on her students.

“It is so important for students to be a part of something bigger than the walls of their elementary school,” she says. “The program lets them be a part of such an amazing college community right in their city.”



UML student-athletes met their elementary school pen pals at the university’s Costello Athletic Center in April.



Students Call for More Action After Attending U.N. Climate Summit

A group of UMass Lowell students traveled to Dubai to expand their climate change knowledge on a global scale.

Junior William Lefebvre, senior Madison Feudo, recent graduate Aya Oulal ’23 and master’s student Victoria Wisniewski ’23 traveled to the United Arab Emirates in December alongside Civil and Environmental Engineering Assoc. Teaching Prof. Raj Kumar Gondle to attend COP28, the annual United Nations climate summit. Ph.D. student Zita Ngagoum Ndalloka attended the two-week conference virtually.

The students were the only delegation from a public university in Massachusetts to attend. Their trip was funded by the Rist Institute for Sustainability and Energy.

COP28 involved nearly 200 countries sharing their climate action strategies and goals while negotiating the next steps toward mitigating climate change. The students say they were motivated and encouraged by the experience.

“For UMass Lowell students, it’s important to turn your education into action,” Lefebvre says.

The students were interviewed about their COP28 experience while in Dubai by WGBH radio and wrote an opinion piece for the *Boston Globe* before departing for the conference.

Above, from left: students William Lefebvre, Madison Feudo, Aya Oulal and Victoria Wisniewski at the UN Climate Change Conference in Dubai.

University Honors Bucky Lew, First Black Pro Basketball Player and Former Coach

In 1902, 18-year-old Lowell native Bucky Lew made history when he took the court with Lowell’s Pawtucketville Athletic Club of the New England Basketball League, becoming the first Black professional player in the country.

Twenty years later, Lew made history again when he was named basketball coach at Lowell Textile School (now UMass Lowell), making him the first Black coach of an integrated college basketball team.

The university honored Lew’s legacy during a men’s basketball game in February, unveiling a plaque in his honor that’s been installed at Costello Athletic Center. One of Lew’s granddaughters, Wendy Johnson, was there, as was English alum Chris Boucher ’93, who last year published a book about the pioneering athlete, “The Original Bucky Lew.”

The oldest of four children, Bucky Lew came from a family of trailblazers. In 1914, his sisters Teresa Garland Lew and Marion Scott Lew became the first African Americans to graduate from the Lowell Normal School (now UMass Lowell). Teresa was the first Black teacher in Lowell public schools and the first Black person—and woman—to earn a law degree from Portia Law School in Boston (now New England School of Law).

Despite his place in basketball history, Lew has yet to be inducted into the Naismith Memorial Basketball Hall of Fame in Springfield, Massachusetts.

Boucher hopes the recognition that Lew is starting to receive in his hometown of Lowell can help change that.



The university honored Lowell native Bucky Lew, back left, during Black History Month. Lew, seen here with the 1900-01 Lowell YMCA basketball team, became the first Black professional basketball player by playing with Pawtucketville Athletic Club. He coached Lowell Textile School in 1922.

Students Develop Robotic Guide Dog

As an undergraduate, Trevor Landurand '23 was diagnosed with keratoconus, a condition in which the eye's cornea thins out and bulges like a cone. The condition left him legally blind.

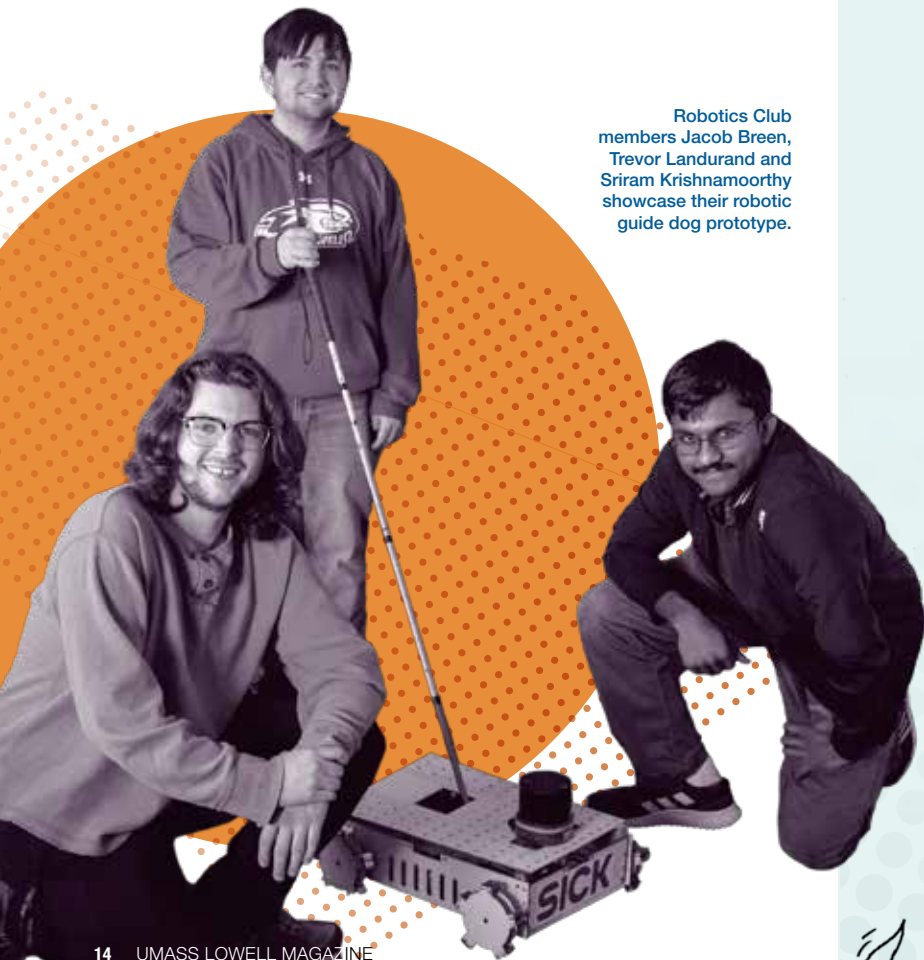
Now a mechanical engineering master's student, Landurand has since gained back most of his vision, thanks to corrective contact lenses and two eye surgeries. But his experience inspired him to help develop a robotic guide dog as a member of the university's Robotics Club.

The club consulted with the Lowell Association for the Blind (LAB) as it developed the robotic dog. LAB Executive Director Elizabeth Cannon '81 offered several suggestions, such as making the technology easy to use, ensuring the robot is stable and can climb stairs, and programming so it can navigate unfamiliar buildings.

One of the students' goals is to lower the cost of a guide dog. A living guide dog can cost up to \$50,000 annually for training and care; the team is aiming to build its robot for one-fifth of that price.

The students made an original prototype from wood with steel support beams, and they plan on making a final version out of aluminum.

Robotics Club members Jacob Breen, Trevor Landurand and Sriram Krishnamoorthy showcase their robotic guide dog prototype.



Yuxuan Zhang collects lichen samples in Boston before sending them to UML's Core Research Facilities.

Boston Latin School Student Gets an Assist from UML Researchers

After the EPA declared Boston's Lower Neponset River a Superfund site because of PCB contamination, Yuxuan Zhang, a sophomore at the Boston Latin School, decided to do some research of her own on the waterway, a favorite spot for nature walks.

But to conduct her research, Zhang needed access to special laboratory equipment. She reached out to more than 100 companies and universities across the country, asking for help. She had no success

until her inquiry reached Wendy Gavin '23, a senior lab manager at UMass Lowell's Core Research Facilities.

"I get emails every day from people looking for me to help them with their research, and this one stood out," Gavin says.

Zhang wanted to test lichens, which are organisms that grow on trees, rocks and other surfaces, that she collected around the Lower Neponset River to see if they contained previously overlooked contaminants.

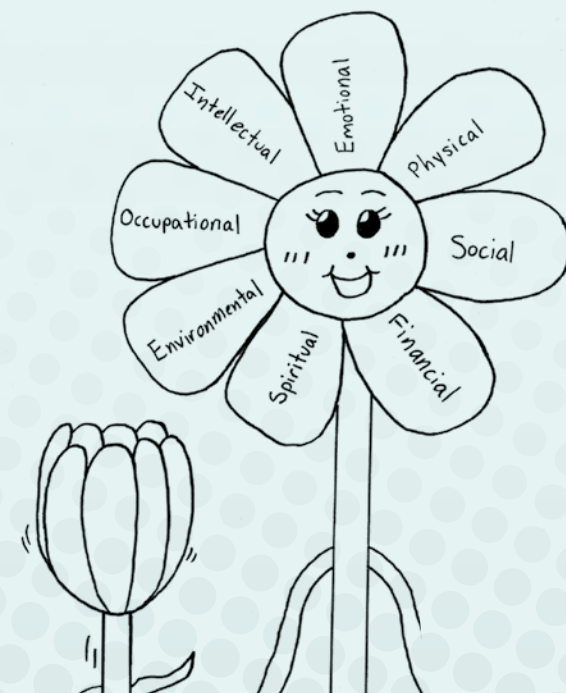
Her science teacher delivered Zhang's lichen samples to UMass Lowell, and lab technologists used a spectroscope to look for the presence of heavy metals in the lichens. The findings revealed elevated levels of lead and selenium.

Zhang spent a day at the lab and learned how to use the different instruments to test her samples.

"I had never been to a lab at a university before, and being able to see instruments in action was a great experience," says Zhang, who is now considering UMass Lowell for college.

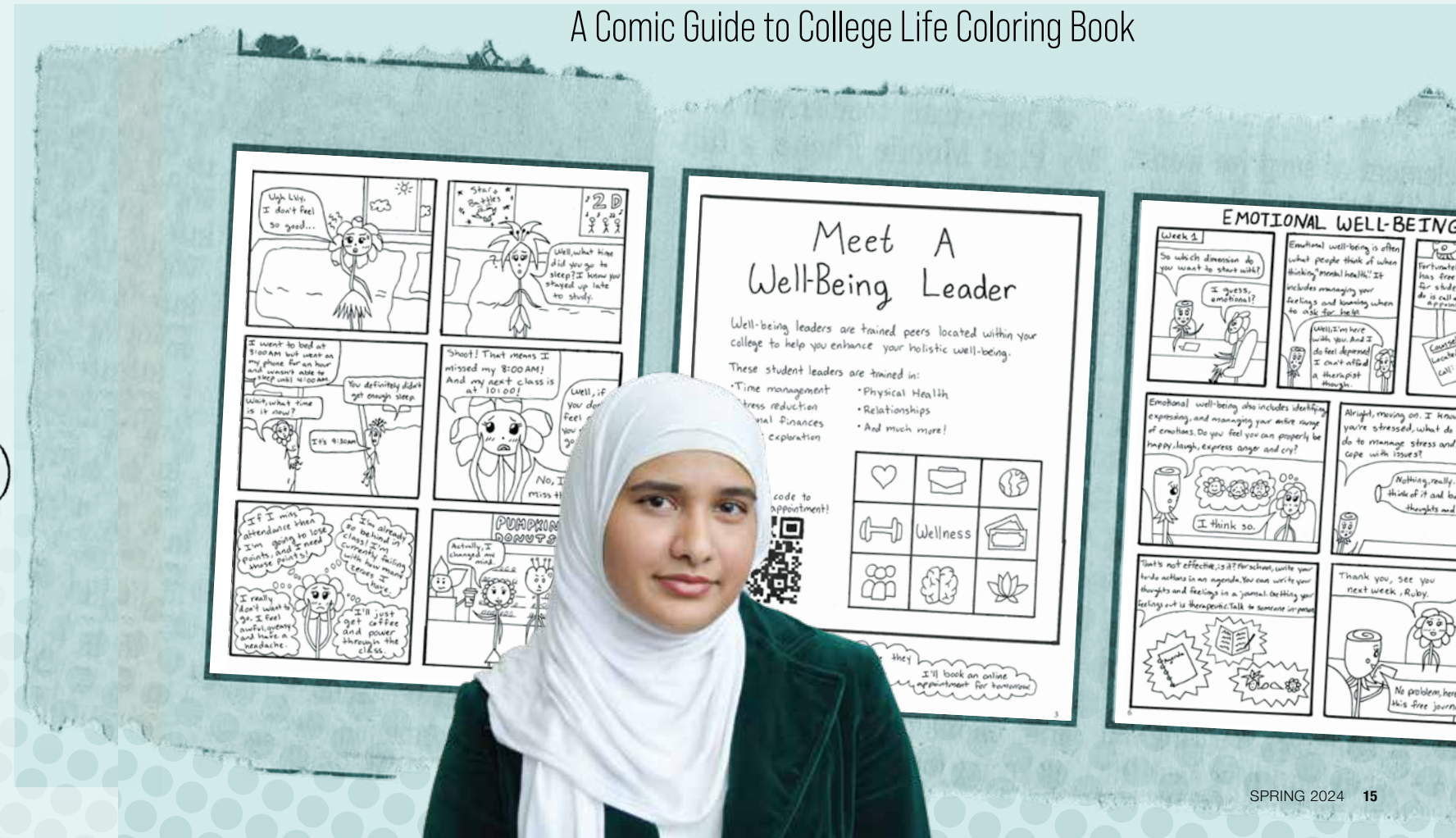
Her work won awards from the National Oceanic and Atmospheric Administration and the U.S. Air Force at the Boston/Region VI STEM Fair, where she placed second in the Senior Division. Her research also took third place in the Massachusetts High School Science & Engineering Fair.

She may be a biology major with plans to apply to osteopathic medical schools, but Doa Jamal '23 is also doing pretty well with the right side of her brain. Inspired by a class she took in the fall, Graphic Novels in Science and Medicine, Jamal drew a comic-book-style coloring book (at right) featuring the eight dimensions of wellness. Part of an Honors College final project, the book also incorporates what Jamal learned working as a Well-Being Leader with UML's Office of Student Life and Well-Being. "I dedicated it to all River Hawks trying to do their best," she says.



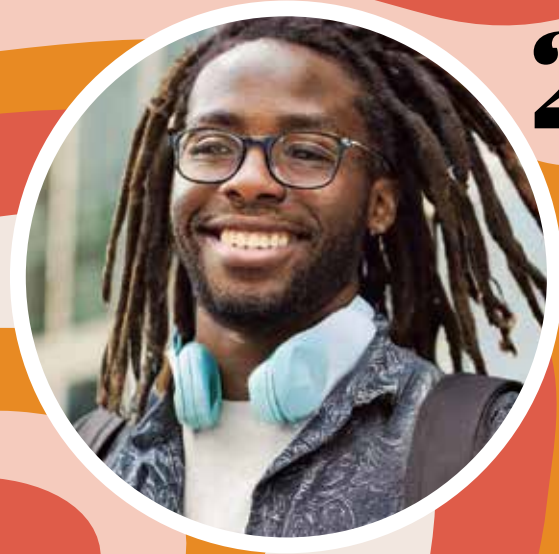
Wellness in Bloom

A Comic Guide to College Life Coloring Book





1.



2.



5.



3.



4.



6.

Reality Check: Can you Spot the AI Images?

Three of these images are of UMass Lowell students or recent graduates, and three were created by Adobe Firefly, a generative machine learning tool released last year. Artificial intelligence is getting increasingly better at creating lifelike photos of people who do not exist. Can you tell the difference?

SEE ANSWERS BELOW.

RESEARCH ROUNDUP

RESEARCHERS DEVELOP NEW WAY TO FILTER FOREVER CHEMICALS FROM WATER

Chemistry Asst. Prof. James Reuther and his research group are developing a sustainable water filtration system that can remove per- and polyfluoroalkyl substances (PFAS), which are long-lasting chemicals linked to harmful health effects. The project is being funded by grants totaling nearly \$85,000 from the U.S. Geological Survey and the Massachusetts Technology Transfer Center.

To filter PFAS out of the water, Reuther and his team created a gel by linking together polymers, which are chemical compounds consisting of bonded molecules. The linked polymers naturally form voids, which trap pollutants as water moves through.

Traditionally, activated carbon is used to remove PFAS and other pollutants from the water, but it lacks a major benefit found in the filtering gel created by Reuther and his team: The gels are adaptable, meaning they can be given specific properties by changing their polymer structure so that they target specific pollutants.

The gels are also a sustainable alternative to activated carbon filters, which need to be thrown away once they become filled with pollutants. The researchers can open the gel and remove the PFAS by applying a stimulus like ultraviolet light. After the PFAS are removed, the gel can be reused.



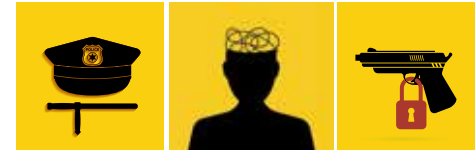
Biologist Looks to Protect Corals from Fast-Spreading Disease

BELOW THE CLEAR BLUE WATERS surrounding the Colombian island of San Andrés, coral is under attack. For the past year, stony coral tissue loss disease has plagued the area, causing a roughly 25% decline in coral cover, according to Biological Sciences Asst. Prof. Sarah Gignoux-Wolfsohn. The disease, whose cause remains unknown, was first reported off the coast of Florida in 2014 and has since spread throughout the Caribbean.

Gignoux-Wolfsohn and a team of researchers are working to develop a probiotic treatment to help protect corals from stony coral tissue loss disease. The Coral Research & Development Accelerator Platform awarded the researchers a grant of roughly \$1.5 million for the project, with \$323,000 going to UMass Lowell.

“In a lot of places, people have been treating corals with antibiotics once they get the disease, which is not an ideal solution because you’re only treating them once they show disease signs,” Gignoux-Wolfsohn says. “The idea with probiotics is that we could treat corals before they’re exposed to the disease and hopefully make them healthier.”

Asst. Prof. Sarah Gignoux-Wolfsohn surveys healthy corals in Little Cayman, Cayman Islands.



Criminology Faculty Win Major Grants from Department of Justice

THREE FACULTY MEMBERS from the School of Criminology and Justice Studies have won major grants from the U.S. Department of Justice.

Asst. Prof. Emily Greene-Colozzi is the principal investigator on a three-year, \$985,000 grant that will study the effectiveness of red flag laws, which prohibit troubled individuals from accessing guns, in preventing mass shootings.

Assoc. Prof. Christopher Harris, whose research focuses on police accountability and discipline, was awarded \$907,000 to study internal affairs units in police departments and come up with ways to improve policies and practices.

And under a three-year, \$420,000 planning grant, **Prof. Melissa Morabito** will work with the Boston Police Department and Boston Medical Center on an initiative that focuses on providing support to individuals experiencing mental health or substance abuse issues.

Morabito has worked with the Boston Police and the medical center for a decade to evaluate their partnership, which aims to de-escalate potentially dangerous situations, get mental health and other services for troubled people and, when possible, keep them out of the criminal justice system.

Under the latest grant, Morabito’s team will work with the police department and medical center on ways to share key long-term data on individuals without violating their confidentiality.

Analysis Shows that Omega-3 Fatty Acids Support Heart and Brain Health

WHAT’S THE BEST DIET to maintain heart health and stave off cognitive decline? And does it differ from person to person? Biomedical and Nutritional Sciences Assoc. Prof. Mahdi Garelnabi and a team of researchers took a deep dive into a raft of studies to look for answers.

They reviewed data from 24 studies, which included more than 700,000 individuals from several countries. Their analysis reveals that the benefits on cardiovascular outcomes and cognitive function of consuming omega-3 fatty acids, like those found in salmon, tuna and mackerel, can differ by sex and race.

Published recently in the peer-reviewed journal “Arteriosclerosis, Thrombosis, and Vascular Biology,” the analysis demonstrates that supplements of two of the three omega-3 fatty acids improved cardiometabolic outcomes of Black people as well as Asian women. In one of the studies, Black participants who took omega-3 supplements had a 77% reduction in heart attacks, compared with the total group.

“Given the prevalence of cardiovascular and cognitive decline related to omega-3 fatty acids intake documented in this review, clinical recommendations such as dietary changes could be a cost-effective way to prevent disease,” Garelnabi says.



RESEARCH ROUNDUP



NEW PROGRAM GIVES GRADUATE STUDENTS A LIFT

Supported by a five-year, \$1.2 million grant from the National Institute on Aging, the UMass Lowell Innovative Fellows Training (LIFT) program is a new business accelerator initiative tailored for graduate students and postdoctoral researchers passionate about aging-related innovations.

Assoc. Prof. of Marketing, Entrepreneurship and Innovation Denise Dunlap, who researches the commercialization of biotech and medical technologies, is a co-PI on the grant.

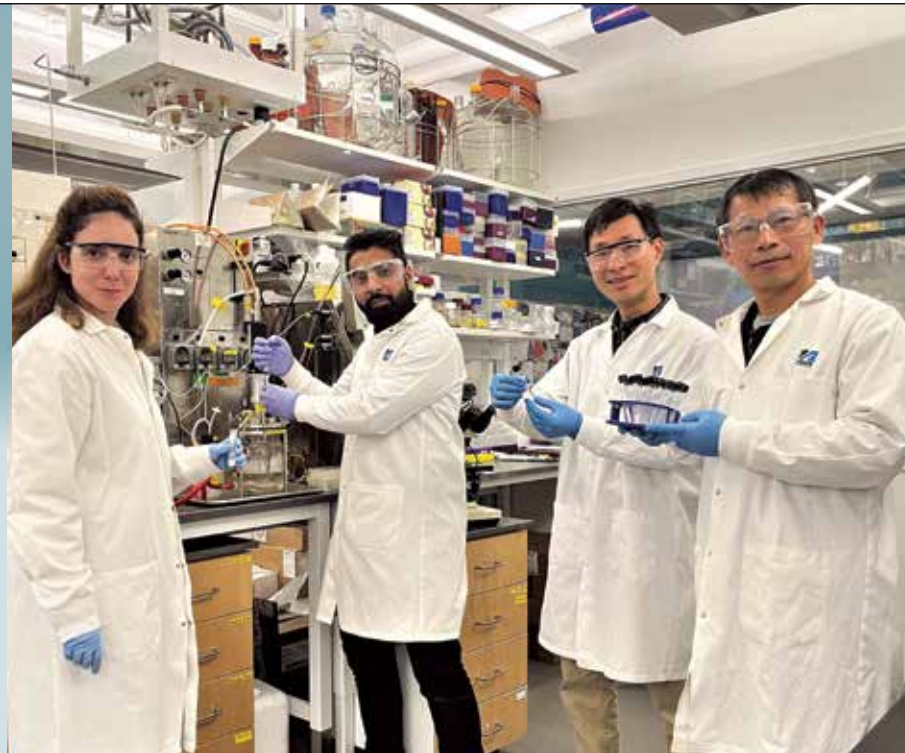
"If you're a scientist, you primarily go work on the bench," Dunlap says. "You're not necessarily thinking about entrepreneurship and commercialization. You're not saying, 'This could actually end up on the shelf at CVS someday.'"

Bryan Buchholz, professor emeritus of biomedical engineering, is the PI and Yanfen Li, assistant professor of biomedical engineering, is a co-PI. LIFT is in conjunction with the Massachusetts Medical Device Development Center & Biotech Incubator (M2D2).

LIFT's inaugural 10-student cohort included students from UML, Harvard University, Brown University and Boston University.

This past semester, the fellows met online weekly to learn about competitive analysis, regulatory strategy, intellectual property and venture financing. Working with mentors from biotech and medical technology, they developed novel solutions to address aging and aging-related diseases, including Alzheimer's disease. They presented their ideas at the Saab Emerging Technologies & Innovation Center in late April.

One example: Russell Perkins '18, '20, a UML electrical engineering Ph.D. candidate, was inspired to combat elder fraud after his aunt lost \$1.6 million to scams. He created SafeGuardian AI, an artificial intelligence-driven, in-home robot that can alert the elderly to scams by monitoring their emails and phone calls.



REUSE, REDUCE, UPCYCLE

LOOK AROUND, AND IT'S LIKELY THAT SOMETHING made out of polyethylene, or PE, is within reach. PE is one of the most commonly produced plastics in the world, used in everything from trash bags to food containers and water bottles.

The downside to PE products is that most are tossed after a single use. They often end up polluting oceans and endangering marine ecosystems.

Two chemical engineering faculty researchers, Assoc. Profs. Dongming Xie and Hsi-Wu Wong, are trying to change that. Supported by a three-year, \$463,000 grant from the National Science Foundation, they are developing technology that would help reduce waste PE through upcycling, a process in which discarded materials are converted into products of higher value than the original.

The researchers are developing a two-step approach to upcycling waste PE.

First, they are using a thermochemical process to decompose waste PE under high temperatures into intermediate molecules, such as alkanes, alkenes, aldehydes and alcohols. Then they are using a biomanufacturing process to convert these molecules into value-added products used in industry, including chemicals used in making polymer plasticizers, adhesives, emulsifiers, fungicides and biopharmaceuticals.

"The success of this research would help pave the way for the future manufacturing of a wide range of platform chemicals from waste PE and other waste plastics," Xie says.

Advances in Light Therapy Aim to Ease Side Effect of Cancer Treatments

Cancer treatments can wreak havoc on the body, but it's a risk patients take to improve their chances of survival.

One common side effect of cancer treatments is mucositis, a painful inflammation of the mucous membrane that lines the gastrointestinal tract. The condition includes symptoms such as mouth ulcers and abdominal pain, leading to difficulty swallowing, eating and talking. According to the Cleveland Clinic, mucositis develops in up to 50% of patients undergoing chemotherapy and 80% to 100% of patients receiving radiation therapy or stem cell transplants.

Visible and near-infrared light can be used to treat and prevent oral mucositis; however, this light therapy, known as photobiomodulation therapy, can be extremely uncomfortable and time-consuming when delivered inside the affected mouth.

To make things easier for patients, Physics Prof. Anna Yaroslavsky and a team of researchers have developed a universal protocol for delivering the healing light from outside of the mouth. Their work was funded in part by a National Institute of Dental and Craniofacial Research grant totaling more than \$320,000.

"With a universal protocol, every patient can be prescribed the same dose of light to effectively treat oral mucositis," says Yaroslavsky.

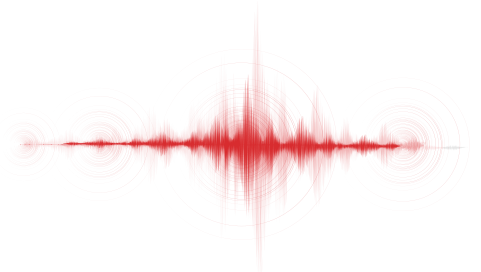


Pancreas-like Engineered Tissues May Help People Living with Diabetes

CHEMICAL ENGINEERING ASSOC. PROF. GULDEN CAMCI-UNAL was recently awarded a three-year grant worth nearly \$242,000 by the National Science Foundation to develop bioartificial pancreas-like engineered tissues that could someday help improve the quality of life of people with diabetes.

With diabetes, the pancreas does not produce enough insulin, or the body does not respond properly to the insulin that it does produce. As a result, the blood sugar (glucose) always stays high, which can lead to serious, lifelong health complications.

Camci-Unal says the project will use innovative biomaterials as well as cell and tissue engineering to design and create tiny 3D tissue scaffolds or structures that will support the growth of insulin-producing pancreatic cells, called beta cells. The ultimate goal is to implant these cell-laden scaffolds into the body to help the patient manage glucose levels more effectively.



With Natural Disasters on the Rise, Researcher Focuses on 'Resilience Analytics'

OVER THE PAST FOUR DECADES, the number and intensity of natural disasters in the United States and around the world have been on the rise. Floods, earthquakes, hurricanes and other disasters have claimed thousands of lives, leveled communities and caused billions of dollars in damage.

Assoc. Prof. Arghavan Louhghalam of the Department of Civil and Environmental Engineering is conducting research on "resilience analytics" that could someday help communities counter the impact of such disasters. Her work is supported by a \$525,000 CAREER grant from the National Science Foundation.

"Our goal is to help develop mitigation strategies by creating our own simulation tools and integrating AI and physics-based modeling of natural disasters so we can evaluate the ability of a particular structure or environment to cope with the hazards," she says.

Working with Ph.D. student Mojdeh Gholami Shali and collaborators from UMass Dartmouth and MIT Sloan School of Management, Louhghalam will conduct a case study that analyzes structures hit by a hypothetical earthquake, gauging the possible damage. The researchers will then scale up their analysis to look at potential damage across an entire city. Their approach can be applied to other natural disasters, such as floods and hurricanes.

Thank You

FOR HELPING US BREAK RECORDS!

'DAYS OF GIVING' RAISES \$3.85M TO SUPPORT STUDENT SUCCESS

UMass Lowell set a new philanthropy record during its seventh annual Days of Giving celebration in April, raising more than \$3.85 million to help fund priorities such as career-connected internships and first-generation student scholarships. Nearly 4,000 donors took part to help the university raise over \$870,000—both of which are new record totals. In addition, \$3.1 million was contributed to UML's student scholarship fund by the Independent University Alumni Association at Lowell.



L to R: Ricardo Canales '24, Karishama Darla '24 and Chloe Manu '24, pose at the official kickoff of the 2024 Days of Giving Celebration.

FEATURES

MORTAL CONSEQUENCES

Psychology alum Shahjehan Khan '14, '16 realized there's a downside to artificial intelligence after the multi-hyphenate talent signed a deal to have his face scanned and used for the "demon sorcerer" character Quan Chi in Mortal Kombat 1, which was released last December. With AI technology, the game's developer can use Khan's likeness in perpetuity—without him receiving additional compensation. Read more on page 29.



(Photo by Pizzuti Photography; makeup by Lisa Allen of Eterfil Beauty)



SAVE THE DATE:
OCT. 18 & 19, 2024



Celebrate and share your UML pride with friends and family during Alumni Homecoming!

Meet up with friends and faculty and revel together in your UML spirit during the Alumni "Takeover" of the Tsongas Center, a time when all alumni and their families are invited back to cheer on the River Hawk hockey team.

- Golden Reunion (for the Class of 1974 and prior)
- Alumni "Takeover" of the Tsongas Center
- Alumni Reunions
- Online Events

uml.edu/homecoming



**THE JURY'S STILL OUT ON WHETHER ARTIFICIAL INTELLIGENCE
WILL DO MORE GOOD THAN HARM. UML EXPERTS
ADDRESS 11 OF THE MOST PRESSING QUESTIONS ABOUT AI.**

Things are changing so quickly in the world of artificial intelligence that by the time you read this, the computers may have already cured cancer and reversed climate change. Or, on the flip side, perhaps they've overthrown humanity and bred a society of killer robots.

If you're like us, you've heard it all—and are likely sick of hearing about it. But for good or bad, AI isn't going anywhere. In fact, its presence in every facet of our lives will continue to expand, say experts.

One of the most profound changes ahead, says UML alumnus and Android co-founder Rich Miner '86, '89, '97, is that "there will be a revolution in the ways in which humans interact with computers."

For instance, the development of new software is historically a complex and time-consuming process that required arcane skills, says Miner, an advisor at Google, where he spent many years helping lead Android development and then growing the company's venture fund.

But now, he says, generative AI-based systems like ChatGPT can understand our written and spoken words, our drawings and, soon, our gestures and facial expressions.

"This means the computer can communicate using natural forms of communication that most of us learn at an early age," says Miner, who is currently focused on his work as co-founder and advisor for a "stealth startup" based in Cambridge, Massachusetts.

"And from relatively straightforward conversational exchanges or written requirements, the computer can leverage those large language models, or LLMs, and the ability to generate images and videos to do a huge amount of work on our behalf, producing quality work, including new computer programs. This will have a huge impact on how people are able to leverage computers in the future."

It also brings to mind a question we raised in these pages eight years ago, when the cover story of UML Magazine was "Will Robots Rule the World?"

At the time, faculty experts like Computer Science Prof. Ben Liu warned that artificial intelligence would push the robot revolution to places that are difficult to even imagine. "It's hard to see where it's going to hit the limit," Liu said, "but for starters, it will replace more and more cognitive, white-collar work." According to Pew Research Center, he was right: About one in five white collar jobs are ripe for AI takeover, its new study found.

Meanwhile, a few months ago, the "godfather" of AI, Geoffrey Hinton, warned in a "60 Minutes" interview that we have arrived at "a turning point for humanity" and that AI has the potential to one day take over.

That's why it's vital that we get ahead of it, says University of Massachusetts Chief Information Officer Mike Milligan, who was recently appointed co-chair of the state's strategic AI task force by Gov. Maura Healey.

"Whether in the way we learn at universities, manage complex organizations or engage in our democracy, we are all going to need new skills and knowledge to use AI for positive purposes and protect ourselves from its potentially harmful effects," says Milligan, a vice president for the system.

UMass Lowell is doing its part. The university launched its own AI task force this year, with an initial priority of creating policies for how students and faculty can most effectively use AI in learning and teaching. Faculty researchers across disciplines, meanwhile, are studying AI impacts and building new technologies. They're using AI to speed up cancer detection and to reduce suicide rates of veterans; they're researching the use of robotic pets to drive sales of consumer goods and incorporating AI tools to improve health care for older adults. Computer Science Assoc. Prof. Anna Rumshisky is spending half her time as a visiting scientist at Amazon, where she's helping to build better natural language processing tools for the company's Alexa tool.

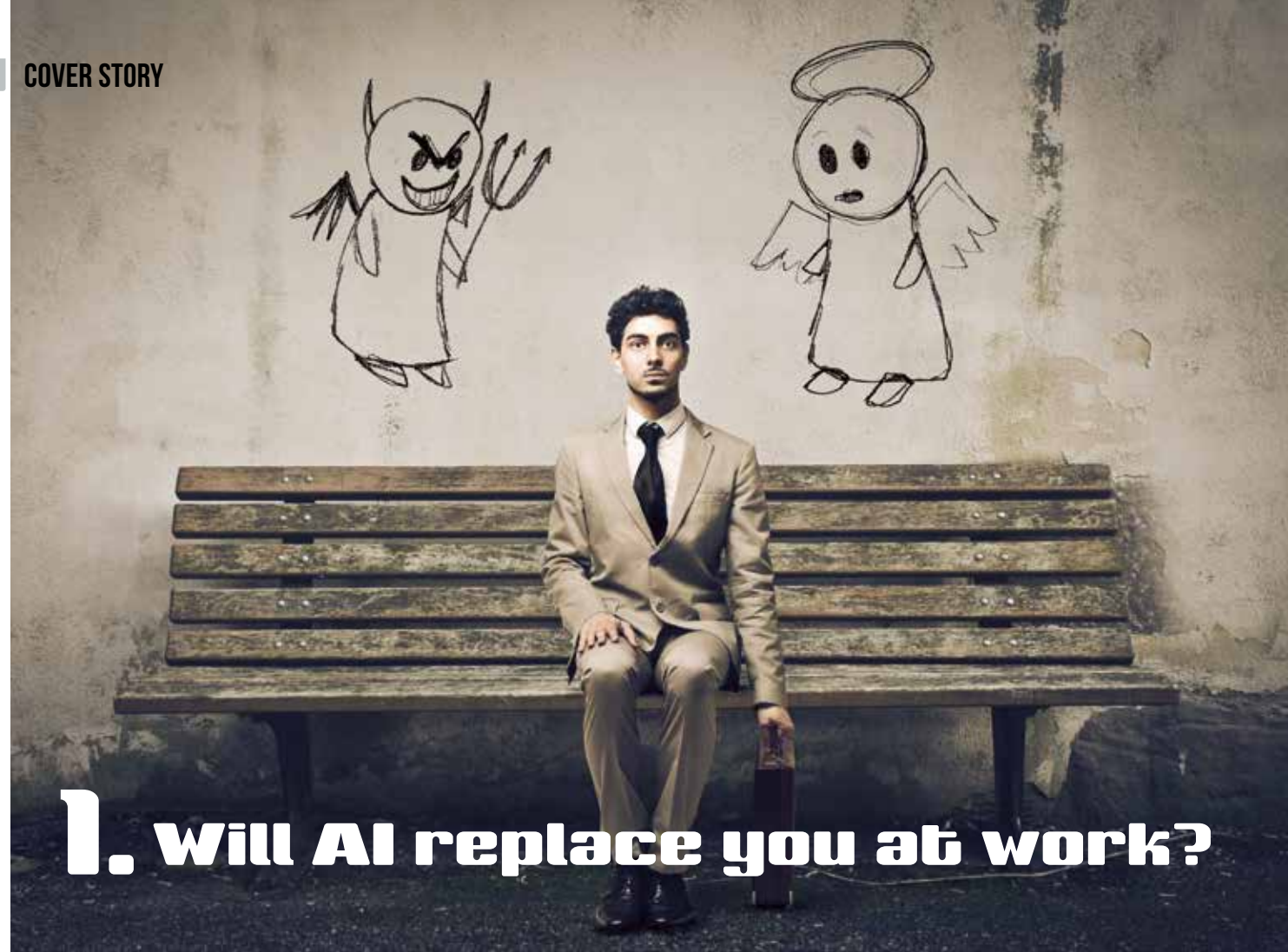
And it's not just faculty: We're hearing from more and more alumni who are using AI for good—or being forced to adapt to it—in their jobs.

"It's an exciting time," says Holly Yanco, chair of the Miner School of Computer & Information Sciences (named for Rich Miner) and director of the New England Robotics Validation and Experimentation (NERVE) Center. "At UMass Lowell, a lot of us have been focusing on ways to use AI to help society. We're making a positive impact on the world."

Though AI opens the door to promising advances, it does have drawbacks, from biases in training data to the massive amount of energy needed to run server farms, says Yanco, who is a fellow of both the Association for the Advancement of Artificial Intelligence and the American Association for the Advancement of Science, honored by both organizations for her contributions to the field of human-robot interaction.

"Any technology has good and bad sides, but I'm optimistic about AI," she says.

In the pages that follow, experts in the UML community weigh in on 11 of the most pressing questions about AI.



1. Will AI replace you at work?

▶ Management Prof. Scott Latham is “morbidly fascinated” with dying businesses. So he’s keenly interested in how AI will affect organizations—and what it means for people’s jobs.

“If your job is data-heavy, numbers-heavy, AI is coming for you,” Latham warns. “If you’re in a job that requires a high level of critical thinking, one that deals with complex human relations, AI will certainly be involved, but I think the human will be OK.”

Latham, who teaches a course called *The Future of Work*, has been studying how technology affects organizations ever since his dissertation on the dot-com bust 25 years ago. He sees AI as the latest in a long line of technologies (computers, robots, the internet) that have changed the nature of work, but adds that it’s difficult to tell the hype from the reality. He subscribes to Amara’s law (named after the late futurist Roy Amara),

which states that “We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.”

“If you look at AI, it’s a very simple model,” Latham says. “You have a data set, and you have algorithms that run on that data. And with AI, you’re actually empowering it to make decisions.”

In the short term, Latham sees humans collaborating with AI in the workplace because “no one is going to trust AI” to make decisions. But human decision-making is limited by time, information and cognitive abilities, which behavioral economists call “bounded rationality,” so people tend to make “incredibly irrational decisions,” Latham says. He predicts a “huge shift” in companies’ decision-making processes a decade from now.

“At some point, the human will be replaced because the AI will be able to

make a better rational decision. I’m not saying a better decision, but a more rational decision,” he says. “You will have AI in charge of critical decisions in an organization around supply chain, around sales, around layoffs.”

Latham and Assoc. Prof. of Management Beth Humberd co-authored a research article for the *MIT Sloan Management Review* in 2018 that looked at “Four Ways Jobs Will Respond to Automation.” They evaluated professions according to the type of value delivered and skills required and created a framework to help workers assess the threat level posed by automation.

While data-intensive industries such as pharmaceuticals, radiology and computer coding are ripe for AI disruption, Latham says jobs that have a high variability of tasks—think skilled trades like a plumber or electrician—are safest. So are jobs that require a lot of human interaction.

“AI is going to affect human resources around hiring, but the tough stuff—dealing with a conflict at work or a toxic employee—AI can’t deal with that,” he says. “Even the biggest AI proponents have doubts about its ability to deal with emotions and relationships.”

‘Every company is an AI company’

Vala Afshar ’94, ’96, chief digital evangelist at customer relationship management software giant Salesforce, also spends much time thinking about what AI means for workers.

they don’t trust organizations to ensure positive outcomes for everyone.

During a fireside chat at UML’s Innovation Hub in December, Afshar told students that every field—from engineering and marketing to service and health care—will be disrupted by AI. The key to staying employable, he said, is to learn how to use the technology.

“The likelihood of job risk is not because of machines and algorithms. You’re likely to lose your job to a human who’s comfortable with technologies like AI,” he says.

“IF YOU’RE IN A JOB THAT REQUIRES A HIGH LEVEL OF CRITICAL THINKING, ONE THAT DEALS WITH COMPLEX HUMAN RELATIONS, AI WILL CERTAINLY BE INVOLVED, BUT I THINK THE HUMAN WILL BE OK.”

—PROF. SCOTT LATHAM

“The future is ‘every company is an AI company,’ ” says Afshar, who recently co-authored “Boundless: A New Mindset for Unlimited Business Success,” a book that explores how companies can make the most of technologies such as AI, blockchain and cloud computing.

Afshar, an electrical engineering alum, says AI is “electricity for the 21st century.”

“AI should be a human right—and I haven’t said that about the internet,” he says. “If you don’t have access to AI, you’re not going to be able to compete and win. You’re not going to be healthy or prosperous.”

Afshar notes that new research by consultant Accenture shows that more than \$10.3 trillion in additional economic value can be unlocked by 2038 if organizations adopt AI “responsibly and at scale.” The same research shows that 95% of employees see value in working with AI, but their top concern is that

Afshar says generative AI tools like ChatGPT are evolving into digital assistants that will anticipate people’s needs at work.

“No matter what type of work you do, you’ll speak to an app on this device and it will guide you. One hundred percent, this is reality,” he says. “It will grow into a concierge service that not only answers directly what you ask, but anticipates your needs without you asking.”

More than half of the companies in the Fortune 500 list in 2003 no longer exist today, according to research from WatchMyCompetitor, a (you guessed it) AI-powered research platform. While the pace of change can be unsettling, Afshar sees the future as half-full.

“I’m not worried about jobs. I’m an optimist,” says Afshar, who encourages students to be optimistic, too. “Sometimes, you sound smarter when you’re a pessimist and cynical, but in the long run, optimists create the future.”—EB

DEMYSTIFYING AI: A GLOSSARY

Artificial intelligence (AI): The simulation of human intelligence processes by machines, especially computer systems. This includes learning, reasoning and self-correction.

Machine learning (ML): A subset of AI that enables machines to learn from data without being explicitly programmed. Algorithms iteratively learn patterns and make decisions with minimal human intervention.

Deep learning: A specialized form of machine learning inspired by the structure and function of the human brain. It uses neural networks with many layers (hence “deep”) to learn complex patterns in large amounts of data.

Natural language processing (NLP): The branch of AI focused on enabling computers to understand, interpret and generate human language. NLP powers applications like language translation, sentiment analysis and chatbots.

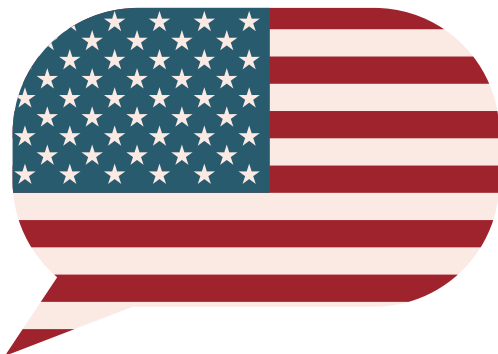
Generative AI: A type of AI that can generate new content, such as images, text, or audio, often based on patterns learned from existing data. It’s used in various creative applications, including art generation and content creation.

Large language model (LLM): A type of AI model, such as GPT, that has been trained on vast amounts of text data and can generate human-like text based on prompts or questions. These models are capable of understanding and generating human language with impressive accuracy and coherence.

Data mining: The process of discovering patterns and extracting knowledge from large amounts of data. It involves various techniques from statistics, machine learning and database systems to uncover insights that can be useful for decision-making.

Bias: In the context of AI, bias refers to systematic errors or inaccuracies in a machine learning model’s predictions or decisions, often reflecting unfair or prejudiced assumptions in the training data or algorithms.

Source: ChatGPT 3.5



2. Is AI destroying democracy?

Amid rising alarm over deepfake videos of politicians and robocalls to voters, as well as social media algorithms that drive people into political news silos, Political Science Asst. Prof. Emma Rodman still sees reason for optimism about AI.

“The worry is that AI and misinformation erode democratic discourse and democratic norms,” she says. “My interest is in the flip side. I think there are a lot of potential ways to use AI to promote democratic engagement.”

Some academics and even social media companies are working on ways to do that, including Rodman, a political theorist. Working with an Honors College student, she is developing a large language model based on writings by political theorists that other political theorists could query to help them think more creatively about fundamental political questions, such as “When freedom and equality conflict, how should we decide what to prioritize?”

AI can’t solve such political dilemmas, she says: Each person will come to a different answer based on their own beliefs, experiences and feelings. But asking an AI model to articulate a wide range of viewpoints could help political theorists approach such questions in new ways.

“No one view is going to be more valid than another, but they’re all going to give me a lot of raw material to start to make those judgments,” she says.

Generative AI also has great potential to help politicians and policymakers, she says, because it’s good at talking through policy questions, although humans ultimately must decide what course to pursue.

For ordinary citizens, Rodman thinks large language models could be created that would empower people to participate more meaningfully in democratic self-governance. For starters, AI is great at summarizing complex policy proposals, court decisions and legislation in everyday language so that people can understand and then act on them, she says.

AI can also be a good conversational partner, she says. Not only is it well-informed, but Rodman believes that a virtual partner could help people ask questions and work through their views on complicated and sensitive topics, such as immigration policy, without fear of a snide remark or angry outburst.

That’s one possible way that large language models could help increase political participation by people who, right now, don’t feel

comfortable forming and expressing their views, she says.

“So much of a conversation is talking to ourselves out loud in the presence of another person, trying things out to figure out what we think. And we’re finding that having those conversations with an AI model, you get a lot of the same benefit, but in a low-stakes way,” she says.

Most of all, Rodman is encouraged by her work with students in exploring the potential uses of AI. “Students are uniquely positioned to be really great at thinking outside the box about how to use these models,” she says. “They think about things in ways I don’t, and that’s so valuable.”—KW

3. Can AI save the planet?

 Climate change is wreaking havoc on the planet. The Earth has warmed by about 1.1 degrees Celsius since the late 1800s, resulting in intensified heat waves, rising sea levels, reduced agricultural yields and more adverse effects.

A main driver of climate change is greenhouse gas emissions, which warm the globe by trapping the sun’s heat. Emissions must reach net zero by 2050 to limit global warming to 1.5 degrees Celsius, as called for in the Paris Agreement. The world is not on track to reach this goal, according to the United Nations, but AI may help.

“In terms of stabilizing the climate, the science tells us unequivocally that the one thing we need to do is rapidly reduce emissions,” says Mathew Barlow, a professor in the Department of Environmental, Earth & Atmospheric Sciences (EEAS). “Where AI can be used to further that goal, for instance, is by allowing us to process and understand large amounts of data more quickly.”

Barlow uses AI for data analysis in his climate research. For example, he and a team of researchers used machine

learning to develop a better understanding of heat waves in the Northeast. Their findings can serve as a basis for future research into heat wave predictability, model assessment and climate projections.

“AI can be important for improving our decision-making and the speed and efficiency with which we can reduce emissions,” he says.

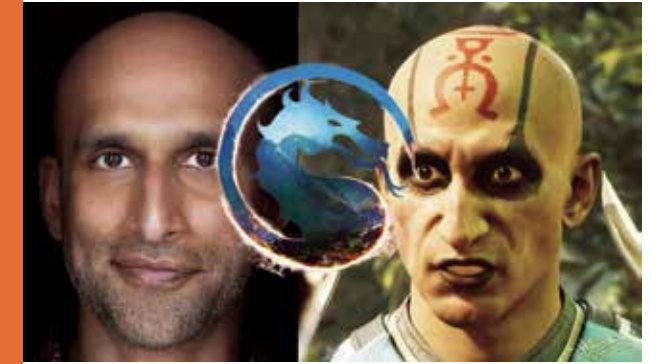
Working with Juliette Rooney-Varga, an EEAS professor and the Climate Change Initiative director, environmental studies master’s student Lucia Cheney ’22 uses machine learning to analyze politicians’ tweets on climate change. Instead of going through each tweet individually, AI does the grunt work, allowing Cheney to study the main drivers behind the frequency of climate change-related tweets among politicians.

“It’s important to analyze what politicians say, because it affects the public’s view on climate change,” Cheney says.

AI can be used in several other ways when it comes to tackling climate change. It can be trained to measure changes in icebergs and sea levels, predict weather patterns, map deforestation, track greenhouse gas emissions and optimize heating, ventilation and air conditioning in buildings.

While AI can be a part of the solution to mitigating climate change, Barlow warns that it also comes with risks. He fears people may think they do not need to reduce emissions under the false hope that AI will somehow fix the problem in the future. He adds that AI can also be used to transmit false information, fueling skepticism about climate change. Generative AI, like ChatGPT, also requires large amounts of energy, which adds to emissions.

“AI can be a powerful tool in helping—or hindering—our efforts to tackle climate change, and—as with all powerful tools—we need to think carefully about its ethical use,” Barlow says.—BC



KOMBAT PAY

Video Game Gig Makes Shahjehan Khan ’14, ’16 Think Twice About AI

Psychology alum Shahjehan Khan ’14, ’16 loved playing the video game Mortal Kombat as a kid. So when the actor, podcaster, voice-over artist, musician and model was offered the chance to have his face scanned and used for a character in the game’s latest installment, he was thrilled.

“I don’t know if it’ll be the coolest thing I ever do in my career, but it’s an amazing opportunity to say that you’re the face of a video game character,” says Khan, whose visage was used for “demon sorcerer” Quan Chi in Mortal Kombat 1, which was released last December.

Khan received a one-time payment of \$1,000 from the game’s developer, NetherRealm Studios, for the face-scanning gig in 2022. As he waited for the game to hit shelves, artificial intelligence burst onto the entertainment scene. Last summer, actors and writers went on strike in Hollywood over, in part, the use of AI and digital re-creation in movies and TV.

It dawned on Khan that the studio could use his likeness in the video game franchise for as long as it wanted, and he would not receive credit or further payment.

“AI has evolved so quickly, and some of us weren’t as aware of what it would do to the industry,” he says. “Whether we like it or not, AI is here, and we’re going to have to figure out how to live and work with it.”

When Khan gets a voice-over gig now, for instance, he makes sure there’s a clause in his contract that his voice won’t be digitally recreated for other uses.

“I’m doing my best, but it’s a weird time,” he says.

Meanwhile, he’s keeping busy with his media company, Rifelion, which is releasing a new podcast series this summer called “Witness Chappaquiddick” about Sen. Ted Kennedy’s car crash that killed Kennedy staffer Mary Jo Kopechne.

“It’s the untold story of a witness who was there that night in 1969, and it’s also a larger story about Martha’s Vineyard,” Khan says.

Rifelion is also releasing “Ramadan American,” a five-film anthology written by, directed by and starring American Muslims.

Asked if there will be any AI characters in the films, Khan laughs.

“Not if I have anything to do with it.” —EB

4. How does AI affect security and privacy?

If they haven't already, cybercriminals wielding machine learning algorithms will be coming for your financial and health information, your self-driving car and your online reputation—even as other machine learning programs try to protect them, says Computer Science Asst. Prof. Yimin (Ian) Chen, who does research on using machine learning to improve cybersecurity.

"They are getting stronger on the dark side, too," he says. "As machine learning evolves, they try to bypass our defenses."

Chen says one powerful tactic is "adversarial example attacks," in which an attack algorithm figures out the smallest possible change to an image that will lead a machine learning network to misclassify it. A typical scenario would be to tamper with a self-driving car so its imaging software misreads



a stop sign as a 25-mph speed limit sign; soon, other autonomous vehicles on the same manufacturer's machine learning network could start running stop signs.

Deepfakes are another widespread example of malicious machine learning programs making realistic images, videos and audio from existing samples, Chen says, such as the realistic-looking but faked nude photos of celebrities that have flooded social media sites recently.

Digital networks will always have some vulnerabilities because they are open systems by design, Chen says. That's because AI virtual assistants like Alexa and Siri, social media apps and health care portals all need some of your private information to be useful.

But it's not all bad news. "Machine learning can amplify attacks, but it can help protect against them, too," Chen says. His own research involves using AI to better detect and

block spam accounts in online marketplaces.

Going forward, Chen would like to explore how distributed computing, such as blockchain, can bolster digital privacy and security. "Some people want to walk away from centralized computing," he says. "They don't want Big Brothers that gather all this data, as they have little faith that the data will not be misused."

But government, academics and private companies are all working on the problem, he says.

In UML's Miner School of Computer & Information Sciences, Prof. Xinwen Fu works on making wireless networks more secure, especially the "Internet of Things" (appliances and other household items with network connectivity), and Asst. Prof. Sashank Narain studies ways to prevent criminals from exploiting smartphone sensors to steal data and stalk people.

Thanks to them and other faculty who study machine learning, UML is a leader in cybersecurity education—not only within computer science, but also in partnership with the School of Criminology and Justice Stud-

ies, which offers a master's degree in security studies with a cybersecurity concentration.

UML was the first public university in the Northeast to open a Cyber Range, which features 20 networked computers that can safely launch cyberattacks against each other. The Cyber Security Club, coached by Chen last year, hosted the 2023 Northeast Collegiate Cyber Defense Competition, which Narain organized.

Chen thinks academics and students will develop new cybersecurity tools, especially apps that use machine learning to fortify against the biggest vulnerability in all cybersecurity systems: human error. One example would be an app that could quickly preview where a "click here" link will actually take you, he says.

"Machine learning might do most of the work of defending against attacks, and then it might make more personalized recommendations to individual users," he says. "If everyone practices cybersecurity, then we create a very high bar for attackers." —KW

5. Is AI threatening human rights?

The short answer for Aaron Shepherd, an assistant teaching professor in the Department of Philosophy, is yes.

"AI is already contributing to subtle ways of infringing upon people's freedom," says Shepherd, who teaches a Digital Ethics course that examines ethical issues emerging in AI and other technologies.

AI needs to be trained on immense amounts of data, which can be extracted from people without their awareness. For instance, when a website uses the fraud detection service reCAPTCHA to tell humans and bots apart, the person who completes the test by deciphering text or

matching images is actually helping to build machine learning datasets, according to Google, which owns the service.

"You don't think that you're providing data for AI, but that's exactly what you're doing," Shepherd says.

Companies have also outsourced work to improve AI speech and image recognition. A Time magazine investigation revealed that OpenAI, a San Francisco-based AI research and deployment company, used Kenyan laborers earning less than \$2 per hour to label massive quantities of harmful text passages and images to make OpenAI's ChatGPT less toxic. The task became damaging and exploitative for the workers.

"We don't see any of that on our end," Shepherd says. "We just see the finished product."

Jenifer Whitten-Woodring, dean of the Honors College and a political science associate professor with expertise in human rights, sees another problem with data used to train AI.

"Generative AI is only as good as its training data, and the training data are often biased," she says.

AI generates biased results when it learns from historical data that includes cultural prejudices and other biases. When a business uses AI screening tools for recruiting and hiring, the AI may discriminate against a candidate based on their name due to the biases it learned.

The use of AI for surveillance also raises concerns. Predictive policing, which is aimed at preventing crimes before they happen,

involves invasive surveillance systems that are trained on biased data. This has led to the targeting of people in low-income and minority neighborhoods. Some police departments also rely on facial recognition systems, which can make incorrect matches and lead to wrongful incarcerations.

Shepherd and Whitten-Woodring agree that more needs to be done to protect human rights from AI. They argue that more transparency is needed from AI platforms about how they are extracting data and the shortcomings of that data. And people need to be educated about the dangers of AI, they add.

"We need AI governance," Whitten-Woodring says. "Amnesty International, Human Rights Watch and other organizations have called for legally binding regulation of AI at the national, regional and international levels, but this type of cooperation seldom happens." —BC

AI IS READY FOR SPACE MISSIONS

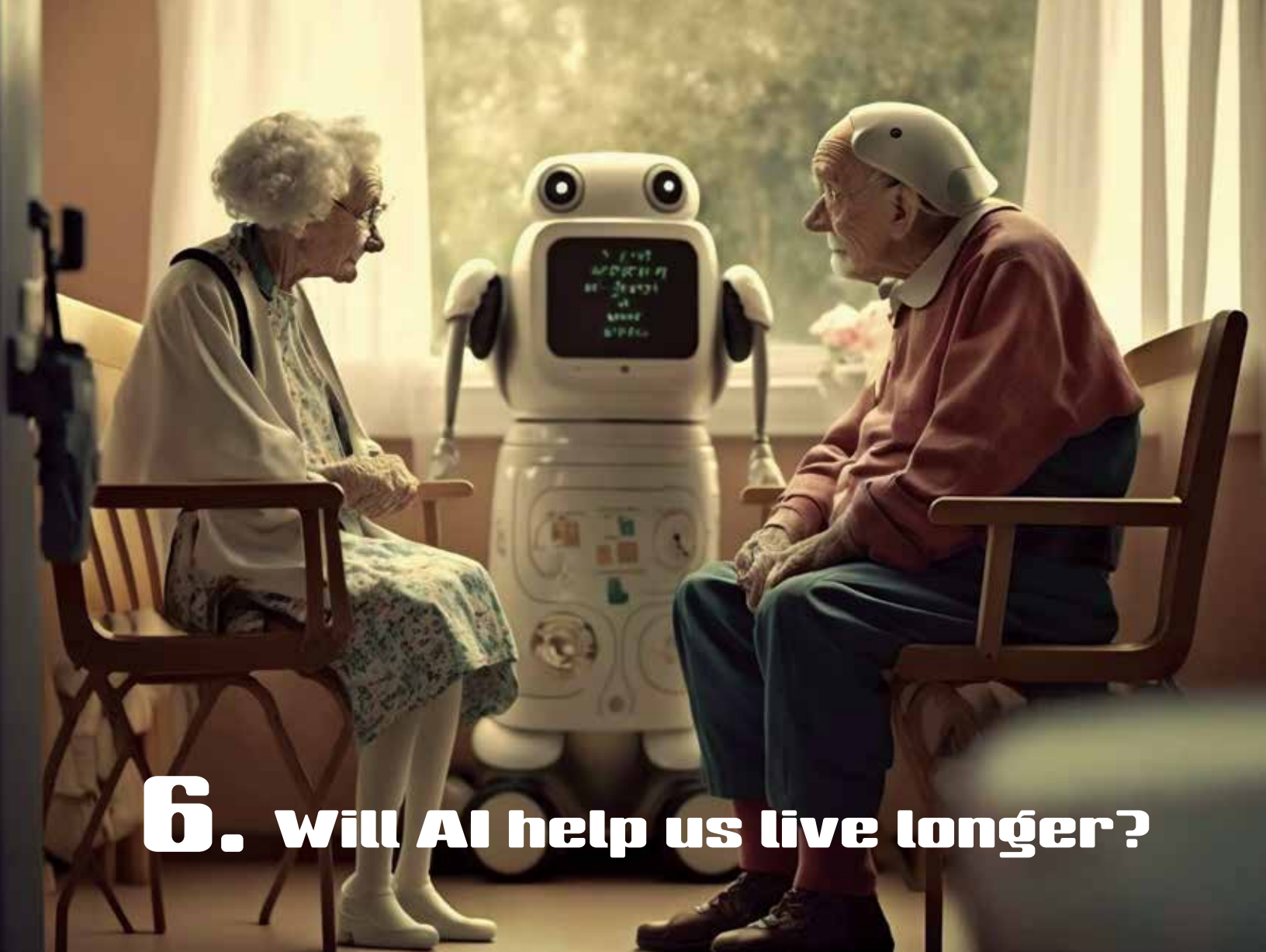
Mathematics alumna Evana Gizzi '13, '14 isn't worried about artificial intelligence making her job obsolete.

"When calculators were invented, it didn't replace mathematicians," says Gizzi, who is an artificial intelligence research lead for NASA's Goddard Space Flight Center in Maryland. "It just gave us a greater tool for doing things."

Gizzi, who earned a Ph.D. in artificial intelligence at Tufts University, is developing AI to speed up the detection and repair of problems in spacecraft. She is also overseeing the development of On-board Artificial Intelligence Research (OnAIR), which is a framework that enables AI algorithms to interact with NASA's core Flight System.

"The vision I have is that every satellite that goes to space will have OnAIR as its brain," she says. "This could be the standard for how satellites do intelligence in space." —BC





6. Will AI help us live longer?

AI has the potential to serve as “an indefatigable super-doctor,” helping us stay healthier and live longer, says Prof. Hengyong Yu of the Department of Electrical and Computer Engineering.

“AI can analyze life and medical data for each individual, offering personalized recommendations for diet, medication delivery and exercise,” Yu says. “AI models, when trained on the clinical diagnosis process, clinical datasets and test results, can surpass top physicians in efficiency, diagnostic accuracy and speed.”

AI can also enhance the performance of medical devices and diagnostic tools, says Yu, who received two grants totaling more than \$4.7 million from the National Institutes of Health to improve CT scan images.

The first grant will help Yu’s team develop an AI-based image-reconstruction algorithm that would effectively “freeze” the beating heart during a CT scan. This will eliminate the blurring movement of the coronary arteries in X-ray images and help doctors better analyze plaque buildup on the walls of the arteries, which is the main cause of heart attacks.

The second grant will develop a computer program for a new generation of CT scanners, improving the image quality and resolution of photon-counting CT technology by using the power of AI for 3D color CT imaging and reconstruction.

Computer Science Prof. Hong Yu, founding director of UML’s Center of Biomedical and Health Research in Data Sciences (CHORDS), says the intersection of health

care and AI is “full of golden opportunities.”

Yu has won grants for AI research projects to help detect physician errors and to identify people at risk of suicide.

“We can save a lot of lives because of AI,” she says. “All these major advances in medicine, to a large extent, are because of AI.”

Beyond doctors’ offices and hospitals, a team of UML researchers is involved in a national effort to develop AI-based smart home technologies to improve the quality of home care for the country’s rapidly aging population. Called the AI Institute for Collaborative Assistance and Responsive Intervention for Networked Groups (AI-CARING), the initiative was launched in October 2021 with a \$20 million grant from the National Science Foundation.

“WE DON’T WANT AI TO TAKE THE PLACE OF SOMEBODY HAVING HANDS-ON CARE FROM A DOCTOR OR NURSE. THAT PERSONAL INTERACTION IS IMPORTANT. AI CAN ASSIST US WITH HEALTH CARE, BUT IT DOESN’T REPLACE IT.”

—PROF. HOLLY YANCO

Computer Science Prof. Holly Yanco, who is leading UML’s efforts on the project, says AI shows great promise in helping caretakers and people with minor cognitive impairments manage and perform daily tasks like meal prep, scheduling appointments and medication management.

“We don’t want AI to take the place of somebody having hands-on care from a doctor or nurse. That personal interaction is important,” Yanco says. “AI can assist us with health care, but it doesn’t replace it. It’s a tool, like an X-ray machine or any other diagnostic machine.” —EA and JG

7. Will AI make us safer on the road?

On any given day, the average person’s biggest chance of death or serious injury comes in one place: On the road. Could AI play a role in fixing that?

“I have no doubts that AI will help make us safer on the road,” says Prof. Yuanchang Xie of the Department of Civil and Environmental Engineering.

For starters, AI can be used to analyze historical crash data and identify hidden and subtle patterns, he says, explaining that this helps transportation agencies improve roadway design, safety and maintenance.

“I use AI extensively in my research,” says Xie, an expert on transportation engineering. Last year, Xie and his co-researchers from UMass Amherst were awarded a \$100,000 grant by the Massachusetts Department of Transportation to use AI to detect pedestrian crossings from aerial images for the entire state.

Xie was also a co-principal investigator in two previous research projects funded by the National Science Foundation: the ethics of self-driving cars and the impact of automated vehicles on traffic flow. He says the

safety of self-driving cars will continue to be improved with the help of AI.

“For instance, AI, coupled with advanced lidar, radar and/or camera sensors, can detect surrounding vulnerable road users, such as pedestrians, joggers and cyclists, and alert drivers” to their presence, he says. “This is particularly useful in low-light conditions, in which human drivers may struggle to see what is ahead of them.”

AI can also analyze driver-behavior data captured using onboard diagnostics systems to identify fatigued driving and erratic behavior for driver training and education, he says.

“AI also plays an increasingly vital role in processing data captured by roadside sensors to extract trajectories of all road users. These trajectories help identify dangerous conflicts or near-crash events not reflected in historical crash reports,” he says. “This information is crucial for transportation agencies to develop proactive safety improvement strategies at places like intersections and exit ramps.”

Although there is much to be optimistic about when it comes to AI and road safety, Xie says AI models have limitations resulting from their training samples.

“They can make mistakes,” he says, when faced with scenarios not represented in their training datasets.

“These cases are a primary reason for the limited deployment of fully automated cars on the road,” Xie says. —EA



8. Can AI help around the house?

When washing machines were introduced to the general public nearly a century ago, advertisements hailed them as technological wonders that would “end the drudgery of washday” for appreciative, apron-wearing housewives everywhere.

Could artificial intelligence likewise be used to tackle tedious household tasks—and, in the process, level the uneven balance of domestic work that exists between men and women to this day?

“The better these technologies become, the more they will help people who are managing families, children and households,” says Assoc. Prof. of Management Elizabeth J. Altman. “The question is: How does that affect the conversation about domestic labor?”

Altman and Assoc. Prof. of Manage-

ment Beth Humberd explored this question in a recent research paper for the Brookings Institution, a policy think tank. While they don’t predict an immediate future of robo-nannies and self-driving cars taking kids to soccer games, they can see AI improving quality of life.

“Yes, AI is likely to provide some time-saving, but we think that the unique promise is in reducing some of the cognitive and mental load,” says Humberd, referring to the management of household tasks like scheduling doctor’s appointments, compiling grocery lists and paying bills.

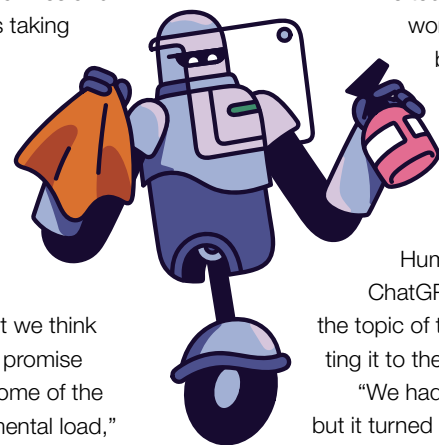
They also found that when a family member uses AI, it can have “second-order effects” on others in the house-

hold. For instance, a father looking to do something with the kids at home can ask ChatGPT for ideas rather than bothering mom at work.

“The technology isn’t reducing the woman’s workload directly, but she benefits from the fact that her family is using it at home,” Humberd says.

Fittingly, as an experiment, Altman and Humberd decided to ask ChatGPT to provide an outline on the topic of their paper before submitting it to the Brookings Institution.

“We had never done this before, but it turned out to be a useful way to check if we were missing any key ideas,” says Humberd, who was happy to see that they were not. “I suppose it could become a good best practice for academics going forward—a way to rake the landscape that you’re researching and see if you’ve missed any spots.”—EB



CHANGING THE BUSINESS LANDSCAPE

Business major Jeffrey Allen uses AI to run lawn care startup

An artificial intelligence chatbot can’t pull weeds, spread mulch or prune shrubs, but that doesn’t mean landscapers aren’t benefiting from AI technology. Just ask new business graduate Jeffrey Allen ’24.

In 2021, Allen and a high school friend started their own landscaping company, Straight Up Service, in their hometown of Litchfield, New Hampshire, to help pay for college. “We always had summer jobs, but owning and operating our own business ended up being a better route financially,” he says.

When OpenAI launched ChatGPT during his junior year, Allen began playing with the technology to see what it could do. He soon discovered that it could help run his business.

“I had been doing marketing by myself, but using ChatGPT, I could create well-written posts, which allowed me to spend time focusing on other things,” says Allen, who was a distance runner on UML’s men’s cross country and track and field teams.

Allen and his business partner, University of Rhode Island student Jonah Crema, hired a finance intern and asked him to incorporate

AI into the company’s accounting system.

“A finance intern’s job typically would be to go through all the data and create easy-to-read graphs for us. But instead, AI takes that data in,” Allen says. “The intern’s job, basically, was to spend an hour making sure everything came out right. It made his work much easier, and it saved us time and money, allowing us to become a more efficient business.”

They also hired a marketing intern and told him to integrate AI into his tasks.

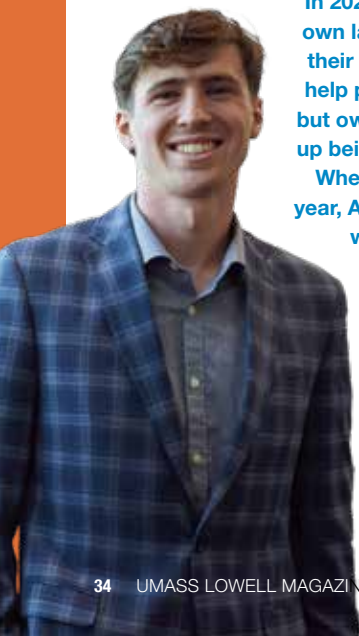
“Our marketing work (using AI) ended up being better than the year before,” says Allen, who adds that the business is at the point now where “we could do without interns.”

So ... is Allen worried that AI will make marketing graduates like himself irrelevant?

“AI will replace a lot of jobs, but there will always be a use for the human mind. AI doesn’t have emotions, and the human part is so important,” he says.

Allen, who admits to using AI “more than I should for school and daily tasks,” thinks that it should be taught to students as early as middle school.

“If it’s used correctly, it can be really beneficial for everyone,” he says. “If you focus on the right stuff, every major in college will still be important.” —EB



9. AI for students—is it cheating?

Julie Nash was listening to a talk on campus about the possibilities of artificial intelligence when she had an aha moment.

“That was the lightbulb moment for me,” says the vice provost for academic affairs. “AI is so much more than ChatGPT and plagiarism software.”

At a time when concerns are heightened around AI and education, Nash sees the benefits of the technology. She left the talk impressed by the professors who use different forms of AI in their work, from learning how genetics impact neurodegenerative diseases with AI models to examining how AI could help make difficult decisions during a life-threatening event.

But she knows about the downside, too. Like most universities and colleges, UML gets the occasional academic dis-

honesty case in which a student used AI in an unethical way, whether for cheating on a test or writing an essay.

“It would be so simple if the university could say that students may not use AI in any of their work on campus, but what is that going to do to the faculty who actively use AI in their classes?” she asks. “That’s not a policy that works for them.”

Nash is looking for solutions to combat cheating with AI. She is a member of UMass Lowell’s AI task force, which is working to provide AI resources to faculty and staff. (On the academic side, UML has been ahead of the game; five years ago, faculty were given access to Gradescope, an AI-based software that streamlines the grading and feedback process.) She is also looking to create recommendations for policies on AI as a

member of Complete College America’s Council for Equitable AI.

“AI is evolving fast,” Nash says. “We need to proceed with a cautious urgency.”

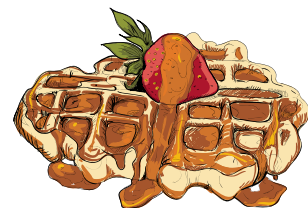
A first step, she says, is building AI literacy among students as the technology becomes more prevalent in our daily lives. The university is committed to providing students with the necessary tools to help them understand how to use AI, as well as the implications and ethics behind the technology.

“We will be doing our students a disservice if we don’t ensure they become responsibly AI-literate,” she says. “It’s crucial that we equip our students for a future where basic fluency in AI will be as common as the ability to edit a Word document or create a PowerPoint.”—BC

“WE WILL BE DOING OUR STUDENTS A DISSERVICE IF WE DON’T ENSURE THEY BECOME RESPONSIBLY AI-LITERATE. IT’S CRUCIAL THAT WE EQUIP OUR STUDENTS FOR A FUTURE WHERE BASIC FLUENCY IN AI WILL BE AS COMMON AS THE ABILITY TO EDIT A WORD DOCUMENT OR CREATE A POWERPOINT.”

—VICE PROVOST JULIE NASH





BATTER UP

Husband-wife team uses AI to start gluten-free waffle business

Zuckerberg College of Health Sciences alum Christianto Putra '16, '21 saw a business opportunity: a gluten-free, high-protein breakfast waffle that also tastes good. The only problem was that he didn't know the first thing about formulating a waffle mix.

So naturally, he turned to artificial intelligence.

"I told ChatGPT, 'Help me make a waffle without wheat flour that has X, Y and Z ingredients. Give me the amount of ingredients and the cooking directions,'" says Putra, who whipped up the waffles in his family's kitchen in Lowell. "It came out terrible, but I just needed something to start with that I could tweak slowly."

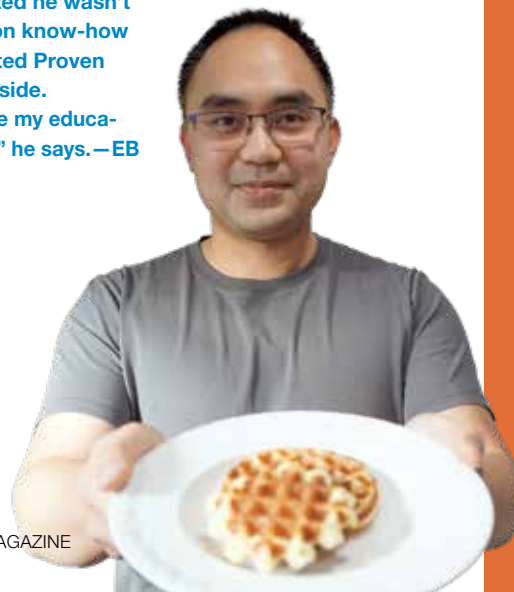
Two years later, Putra and his wife, plastics engineering alumna Raissa Yona '15, are selling *Wise Waffle Mix*, the first gluten-free product from their new business, *Proven Provisions*. A native of Jakarta, Indonesia, Putra has also used ChatGPT to help with writing copy for the *Proven Provisions* website.

"My English is not the best, so ChatGPT helps check my grammar," says Putra, who earned an M.S. in clinical laboratory science and a Ph.D. in pharmaceutical sciences from UML.

A self-described "foodie," Putra has been interested in nutrition for as long as he can remember. His family has a history of type 2 diabetes, and he says his "dream" was to find a cure for the disease. For his dissertation, he researched the exposure of a common food additive called titanium dioxide—the basis for an article that was published in the *Journal of Nutrition*.

Since completing his Ph.D., Putra has worked as an R&D scientist at seqWell, a biotech company in Beverly, Massachusetts. While he "can't think of a better place to work," he realized he wasn't putting his nutrition know-how to use. So he started *Proven Provisions* on the side.

"I wanted to use my education for a purpose," he says.—EB



10.

Can AI improve access to health care?

Already integrated into many health care and public health applications, AI techniques can improve early detection of disease, help providers optimize treatment strategies and detect disease outbreaks.

Dean Mary Gallant of the Zuckerberg College of Health Sciences also sees how AI could potentially improve health equity—a fair opportunity for everyone to experience optimal health, regardless of race, ethnicity, gender, location or income.

"By processing and analyzing vast amounts of data at a speed that humans cannot, AI approaches can help us better understand underlying contributors to health outcomes and drivers of health disparities," says Gallant, a public health expert. "AI-driven diagnostic and treatment algorithms also have the potential to improve health care quality for all."

Gallant warns, however, that AI also has the potential to worsen health disparities and expand health inequities. For example, AI algorithms that are based on available data may lead to inherently biased results.

"The outcomes of AI are only as good as the underlying data it works with," says Gallant. "If large datasets analyzed using AI don't adequately include data from members of underserved populations or populations that experience health disparities, which they often don't, then the results of those data analyses will only benefit the groups represented in the data."



For example, if the data only includes people who are well-insured or who receive care at specialized health care organizations, then underserved groups won't have access to improved outcomes, and disparities in health care could increase.

AI-driven technologies have already led to unfair outcomes for certain groups, says Gallant.

"As AI continues to be incorporated into health care and public health research and practice, it is essential that we keep considerations of health equity at the forefront of this work, so that the promise of AI can benefit all populations," says Gallant.

"BY PROCESSING AND ANALYZING VAST AMOUNTS OF DATA AT A SPEED THAT HUMANS CANNOT, AI APPROACHES CAN HELP US BETTER UNDERSTAND UNDERLYING CONTRIBUTORS TO HEALTH OUTCOMES AND DRIVERS OF HEALTH DISPARITIES."

—DEAN MARY GALLANT

AI IN COMPUTER GRAPHICS: 'AN OPPORTUNITY TO DO SOMETHING AMAZING'

Star Wars. South Park. Jurassic Park. Those are just some of the franchises graphic design alum Terrence Masson '89 has helped make come to life. The computer graphics and visual effects expert says he owes his success, in part, to embracing new technologies.

His current focus? AI.

"AI is just the latest disruption that we have to adapt to," he says. "It really is an opportunity to do something amazing that we never would have thought of before."

Masson sees AI as a useful tool that can eliminate repetitive manual tasks. While working on the film "Hook" in the early '90s, Masson used a computer to manually remove the appearance of wires connected to the late-actor Robin Williams during flying sequences (as in the photo below). Now, AI exists that can automatically remove such things in seconds.

Masson, who serves as the MFA Computer Arts Department chair at the School of Visual Arts in New York City, is training his students on more high-level tasks in addition to AI, so they're prepared to enter today's workforce.

"I tell my students, 'You're not going to lose your job to AI, but you will lose your job to somebody else who's learning and using these AI tools,'" he says.—BC

Read more about Masson on page 52.



11. Will AI replace creators?

Artificial intelligence paints a mixed picture for artists, musicians and performers.

"What does it mean when AI is trained on the wealth of human-generated creativity, imagery and material? Who benefits? Who profits?" asks Caitlin Foley, assistant teaching professor in the Department of Art & Design.

The training of AI on existing creative works has resulted in copyright infringement lawsuits against AI companies from actors, authors, record labels and The New York Times. For Brandon Vaccaro, associate teaching professor in the Department of Music, AI companies need to address how their software generates content.

"If AI is generating new material that was informed by the intellectual property of others, there needs to be fair compensation to the original creator," says Vaccaro, coordinator of the Sound Recording Technology program.

With the capabilities of AI evolving rapidly, some artists fear the technology could take over their livelihood. "People aren't going to want to pay artists to create art when they can just have AI do it," says Misha Rabinovich, associate professor in the Department of Art & Design.

But Theatre Arts Prof. Shelley Barish argues that creators are essential when it comes to the arts, as AI does not experience emotions as people do. "It's scary to think that AI could replace the human interpretation," she says, adding that what it can do is reduce time when used in conjunction with a creator.

For instance, Barish has used AI as part of her design process for theater sets.

"I've used AI similarly to how I use Photoshop, where it's producing something, and then I'm altering that production to be what I want," she says. "It cuts down on time, and time is money as a theatrical artist."

Rabinovich agrees that AI can eliminate some of the tedious aspects of creative work, while providing valuable resources to creators who do not have the budget to realize their visions.

"Early-career artists could use AI to generate a film based on a script they wrote, or produce a virtual world based on their drawings," says Rabinovich, who with Foley is part of the duo Caitlin & Misha; the two have used AI to develop character dialogue in their animation series "Ecology of Worries."

AI may change the creative process, just as technologies like the phonograph, video and 3D printing have, but Vaccaro doubts it will kill creativity.

"For all those opportunities that may go away because of something like AI, there will be new opportunities," he says.—BC

THE ASSIGNMENT:

Write a 300-word alumni magazine story conveying that the University of Massachusetts Lowell is the new flagship university in the state, given its ranking as the No. 1 public university in Massachusetts by The Wall Street Journal. Include a headline and a subhead.

THE ART PROMPT:

Create an image to accompany a magazine story about why UMass Lowell was named the No. 1 public university in Massachusetts, based on student outcomes, inclusive campus and learning environment.

THE BACKGROUND:

We assigned a story to one of the magazine's longtime staff writers, Editorial Director Jill Gambon—and to ChatGPT. They got the same assignment and word count. Accompanying art for Gambon's story was directed by Senior Graphic Designer Karen Hoots, while DaVinci and Imagine Art created the visuals for the AI story.

CHATGPT

VS

STAFF WRITER

Who Did it Better?





UMass Lowell Rising: The New Massachusetts Flagship University

Wall Street Journal Rankings Confirm UMass Lowell's Ascension to the Top

By ChatGPT 4.0

In a groundbreaking achievement, the University of Massachusetts Lowell has emerged as the preeminent public university in the Bay State, solidifying its position as the new flagship institution of Massachusetts. With the recent distinction of being ranked No. 1 in Massachusetts by the esteemed Wall Street Journal, UMass Lowell has garnered national recognition for its exceptional academic programs, cutting-edge research initiatives, and unwavering commitment to student success.

The ascent of UMass Lowell to the pinnacle of higher education in Massachusetts is a testament to the university's relentless pursuit of excellence and innovation. Through strategic investments in faculty, facilities, and academic resources, UMass Lowell has transformed itself into a world-class institution that rivals the most prestigious universities in the nation. The university's focus on experiential learning, interdisciplinary collaboration, and industry partnerships has not only enriched the educational experience of its students but has also propelled UMass Lowell to the forefront of higher education in Massachusetts.

At UMass Lowell, students are not just passive learners but active participants in shaping their academic journey and preparing for successful careers in an ever-evolving global economy. The university's strong emphasis on practical, hands-on learning experiences, combined with a supportive and inclusive campus community, ensures that graduates are well-equipped to tackle the challenges of the 21st century workforce with confidence and expertise.

As UMass Lowell continues to set new standards of academic excellence and innovation, it is clear that the university's rise to prominence is not just a momentary achievement but a reflection of its enduring commitment to transforming lives, driving economic growth, and shaping the future of Massachusetts and beyond.

Word count: 265



EDITOR'S ANALYSIS:

Overall, this is a serviceable attempt, but it's lacking the human elements and specific details that make a good story compelling and memorable. Plus, that headline might be controversial within the UMass system.

PROS:

- Clear sentence structure, good spelling and proper grammar
- Adheres to the word count, and in fact comes in under (a rarity with human writers!)
- Headline and subhead are direct and compact
- Includes a few strategic and accurate details outside the scope of the assignment (e.g., the final sentence)

CONS:

- Most of the sentences could apply to any university
- Clichés and overused buzzwords
- No quotes, anecdotes or perspectives from humans impacted by this news
- It does not follow UML Editorial Style (which is available online)
- The art is generic at best, and alarming at worst (zoom in on those walking students!)

Grade: C+



We're No. 1: Wall Street Journal Ranks UMass Lowell as Top Public University in Massachusetts

Student Outcomes, Diversity and Learning Environment Push UML into Top Tier

By Jill Gambon

As an undergraduate, business major Angel Molekunnel has already built an impressive résumé: Intern for a state representative. Vice President of the Student Government Association. Student alumni ambassador. Social media coordinator at a nonprofit.

She even served as an international management consultant, by way of a service-learning trip to Panama, where she advised a chicken farmer on new, more profitable business models.

Molekunnel, who emigrated from Kuwait to Massachusetts when she was 16, says the environment at UMass Lowell has allowed her to flourish.

"UMass Lowell is a great place to be, especially if you put yourself out there and seek opportunity," says the UML junior. "There's a very good mix of diversity, and there's a constant push toward including more people."

Experiences like Molekunnel's helped push UMass Lowell to the top of The Wall Street Journal's rankings of Massachusetts public universities.

In its 2024 Best Colleges in the United States ranking, the Journal named UMass Lowell the No. 1 public university in Massachusetts and No. 10 among all schools in the state. The rankings took into account student outcomes, learning environment and diversity.

A degree from UMass Lowell pays off over the long run, according to The Wall Street Journal: Its findings peg the value of UMass Lowell students' return on their education investment as more than \$35,000 higher than the salary impact of similar universities.

"We provide more than an excellent education in preparing UMass Lowell students for success in their next chapter," says Chancellor Julie Chen. "We also help them apply that classroom knowledge to a professional setting and make our alumni highly sought by employers."

The university has made it a priority for students in every major to have career-related experiences—whether internships, co-op jobs or service-learning courses. It recently expanded that effort with The UML Guarantee, an initiative in which every first-time, first-year student has the opportunity to pursue at least one career-connected experience during their undergraduate years, earning pay, course credits or both before graduating.

Molekunnel says her experiences have helped her develop leadership skills and opened the door to new possibilities for careers. She's considering pursuing a job as a cybersecurity analyst and, eventually, becoming a college professor. Thanks to the breadth of experiences she's had at UMass Lowell, she knows she will have no shortage of options.

"The quality of education at UMass Lowell is amazing," she says. "At the end of the day, it's about what you learn."

Word count: 406



EDITOR'S ANALYSIS:

From the jump, this piece shows more than it tells, pulling readers in with real stories and supporting facts—making for an engaging and memorable read.

PROS:

- Leads with a strong student story that's an example of why UML is ranked No. 1
- Includes quotes from actual UML people
- Offers a variety of sentence formats, making for a more interesting read
- Packs in lots of specific details unique to UML (e.g., The UML Guarantee and salary potential of grads)
- Includes art that is lively and engaging, featuring real UML students and the actual campus

CONS:

- Came in more than 100 words over the word count
- Headline and subhead are long

Grade: A-

BY ED BRENNEN AND JENNIFER BOHONAK

‘SOMETHING I NEEDED TO DO’

After Building a Successful Career on Wall Street, Lorna Boucher '86 Invests in UML

Lorna Boucher '86 had come a long way from working at her family's diner as a teenager in Lowell. It was the early 2010s, and the UMass Lowell business alumna was living in Manhattan, well-established as an executive director of global equities strategy and communication at Swiss-based investment bank UBS.

That's when she got a call from Steven Rogers '20, senior director of development at UML. He was going to be in New York meeting with alumni and was hoping to get some time on Boucher's calendar.

"Yeah, absolutely," she said.

Up to that point, Boucher had been so focused on her Wall Street career that she had all but lost touch with her alma mater. Rogers' invitation spurred her to do some "soul-searching" about how important UML had been to her success.

"I came to UMass Lowell, got a bunch of Pell Grants and scholarships, and walked out of school debt-free—except for the Mastercard I used for all my clothing purchases," Boucher recalls with a grin. "Finally, at this juncture in my career, I started thinking about how I owed it to the university to pay it forward. It was just something I needed to do."

Boucher began by gifting some of her UBS stock to the university. Then she started "grilling" Rogers about the number of women enrolled in the Manning School of Business.

"I noticed a trend of fewer women going to business school at the time, and that's a real problem," she says. "Diversity is massively important in business. It demonstratively improves performance and makes the environment more hospitable for everyone."

Boucher was invited to see for herself the direction of the Manning School by sitting in on an advisory board meeting. Enthused by what she saw, she joined the board—and in 2015 became chair.

"The minute I got back to campus and saw the students, I was hooked," she says. "I find so much energy and excitement every time I come to campus."

Born and raised in Lowell, Boucher dreamt of going to college on the West Coast. But faced with the reality of her family's blue-collar finances, she decided to give UML a look. Before she applied to what was then the College of Management Science, she met with Braxton Hinchey, an international business faculty member.

"While I was meeting with him in his office, he picked up the phone and called the registrar and fast-tracked my application. It was kind of amazing," says Boucher, who found a mentor in Hinchey. He created a field study class that gave her enough credits to double-major in marketing and international management, and he connected her with internship opportunities.

"That level of hands-on care is still a hallmark of what the university does, and I personally experienced the power of that. To have that at a public university is phenomenal," says Boucher, who also credits the late Stuart Mandell, the college's first dean, with sparking her interest in marketing.

Recipient of the University Alumni Award in 2017, Boucher has given back to the university in many ways. She established the Lorna Boucher '86 Endowed Scholarship, which benefits deserving students in the Manning School. She was a keynote speaker for UMass Lowell's annual Women's Leadership Conference, and a volunteer judge for the university's DifferenceMaker competitions. She has shared career advice with students at networking events. And in May, she received the Distinguished Alumni Award at Commencement, the university's highest alumni honor.

"She could be doing a lot of things, but she chooses to be on the Manning School of Business Advisory Board, giving not only her treasure, but her time and her talent," says Rist Family Endowed Dean of Business Bertie Greer. "We're all better for it."

When speaking with students, Boucher is often asked what it's like being a woman in the male-centric finance industry. She likes to

share a story about when she was 28 years old, working as a consultant for a firm in Boston. She and her CEO were meeting with a group of businessmen in New York.

"We walked into the room and there were all these guys in gray suits. The senior-most guy looked at me and said, 'Before we start, how about some coffee?' and he just looked at me pointedly. And I said, 'I would love some. I take it with milk and sugar,' and I sat down," Boucher recalls.

"When we left, my boss said, 'I can't believe you did that.' I said, 'Did what? He couldn't have been asking me to get him coffee.' I didn't even realize I was being a goof. But I think the point was, people can only patronize you when you're complicit."

After serving as head of product branding strategy at KCG Holdings, Boucher became chief marketing officer at another New York-based global financial securities company, Instinet, in 2016. But last year, after three decades in New York, she decided it was time to "spread out and have more access to nature." So she moved to Exeter, New Hampshire, and took a job as chief marketing and communications officer for Imperative Execution, a financial technology company that operates 100% remotely.

Now, when she's not working from home, Boucher is working on her home—which was built in 1742.

"Isn't that crazy?" she says. "I've always wanted to renovate an ancient house."

She's come a long way, indeed, from working at her family's diner in Lowell.

Taking calculated risks, digging in and moving forward have been constants from Boucher's undergraduate days to her success in business. On campus recently to speak to students about careers, she encouraged them to do the same.

"Lots of people just show up, try not to take risks, and go home at the end of the day," she said. "They don't bring it. Just bring it," she said. [UML](#)

“THAT LEVEL OF HANDS-ON CARE IS STILL A HALLMARK OF WHAT THE UNIVERSITY DOES, AND I PERSONALLY EXPERIENCED THE POWER OF THAT. TO HAVE THAT AT A PUBLIC UNIVERSITY IS PHENOMENAL.”

—LORNA BOUCHER

Chief Marketing and Communications Officer for Imperative Execution





BROOKS AUTOMATION + UML:

A Partnership Built on Shared Values and Common Bonds

From Brooks Automation's headquarters, perched on a hilltop in Chelmsford, Massachusetts, you can see Fox Hall, UMass Lowell's 18-story residential tower, some 6.5 miles away. The direct line of sight between the university and the robotics company is a fitting reminder of the close connections and ever-evolving relationship between the two.

Brooks, a provider of precision vacuum robotics, integrated automation systems and contamination control solutions for the world's leading semiconductor chipmakers and equipment manufacturers, employs dozens of UMass Lowell alumni and hires students from the Francis College of Engineering for its summer internship program. It also sponsors senior capstone projects for student engineers. In turn, UMass Lowell provides access to its core research facilities and a reliable and steady pipeline of skilled professionals, an asset for any company operating in a market for which qualified talent is highly competitive.

"Brooks Automation is a great collaborator for UMass Lowell," says Chancellor Julie Chen. "It's a productive partnership on all levels: Our students get opportunities to apply what they've learned in the classroom to real-world challenges, and Brooks benefits from the collective know-how of our university community."

Inside Brooks, a key champion of the partnership is alumnus Leigh Sharrock '03, the company's senior director for systems engineering. Sharrock, who earned a degree in electrical engineering, says the two organizations are a good match, with shared values and a common roll-up-the-sleeves ethos. Interns and early-career professionals from UML bring energy and fresh ideas that do not go unnoticed, he says.

"Their perspective and their work ethic differentiate UML students," says Sharrock, who has mentored UMass Lowell interns as well as recent alumni at the company. "Brooks is busy and fast-paced. It's fairly high-pressure and UML students adapt well."

Mechanical engineering major Jonas Flores says his six-week internship on the vacuum systems team last summer was a "great learning experience."

Flores, a senior, says he was comfortable asking questions and making suggestions on projects. Senior engineers welcomed his input and offered feedback, he says.

"I felt like I learned something every day. It was just what an internship is supposed to be," says Flores, who will be interning there again this summer.

> BY JILL GAMBON

Brooks also paid for Flores and another UMass Lowell intern, Marlis Occilant, a junior industrial engineering major, to attend the Society of Professional Hispanic Engineers national convention in Salt Lake City last November.

"It was an amazing opportunity. I had never been to a professional conference," says Occilant, who will also be returning to Brooks this summer.

Emma Woodthorpe, Brooks' chief people officer, says having a close relationship with UMass Lowell has helped the company meet its talent needs and has provided access to a pool of highly qualified, diverse job candidates.

"It's been a phenomenal partnership for us," she says.

Kevin Twitchell '14, '20 had no idea how closely the university and Brooks collaborated when he landed an internship with the company as an undergraduate.

"The amount of time and effort that Brooks puts into working with UMass Lowell is impressive," says Twitchell, who joined the company as a full-time engineer in 2020.

Sharrock says the relationship started a dozen years ago with the donation of a six-axis robot, the type used in industrial manufacturing. The company was planning to scrap the robot when his colleague and fellow UML engineering graduate Dana Atwood '92 suggested it might find a home at UMass Lowell.

Now, the company sponsors three industrial capstones for College of Engineering seniors every year. Teams of four to six students are assigned a project, typically something that Brooks engineers haven't had time to tackle.

Sharrock says everyone benefits: Students get real-world experience, and Brooks gets cost-effective help to address an engineering challenge.

Brooks was also one of the first corporate sponsors of the university's Research, Academics and Mentoring Pathways (RAMP) program, a six-week summer program for incoming engineering students from underrepresented groups.

In addition, the company has sponsored a lab for engineering students at Ball Hall on North Campus, and four employees—Sharrock, Atwood, Joe Hallissey '00 and Jeff Cavins '10—serve on College of Engineering advisory boards.

"It's great to have a front-row seat to see all that's going on and changing at the university and to figure out how Brooks can help," Sharrock says. [UML](#)



"IT'S GREAT TO HAVE A FRONT-ROW SEAT TO SEE ALL THAT'S GOING ON AND CHANGING AT THE UNIVERSITY AND TO FIGURE OUT HOW BROOKS CAN HELP."

LEIGH SHARROCK '03
Senior Director for
Systems Engineering,
Brooks Automation



< "Brooks is a great company. A lot of UML students want to work here," says Kevin Twitchell '14, '20, who was offered a full-time engineering position after interning at the company.

Legacy Spirit Gear Is Here!

Alumni, enjoy your 10% alumni discount on the new line of legacy gear, or on the latest spirit wear trends at the UML River Hawk Shop.



RIVER HAWK SHOP uml.edu/bookstore

Become a UML Volunteer

There are many ways to volunteer at UML, from providing students with career-connected experiences to being a social media influencer or serving on a career panel. Join UML Connect, our alumni community and volunteer platform. Benefits include access to career listings, online networking with professionals in the UML community and a premium group dedicated to discussions on volunteerism.

- Create your profile—It's free!
- Choose volunteer options: In the "Offer Help" section, select ways you would like to volunteer.

The Alumni Office will connect personally with people who opt to help.

www.umconnect.org



TAKE A SEAT AT DURGIN CONCERT HALL

A newly renovated Durgin Concert Hall will reopen its doors soon, hosting performances to be enjoyed by the university and Greater Lowell community.

To fund continued improvements to this beloved space, we invite you to name a seat. You can etch your name, or honor a professor, classmate, colleague or family member.

To learn more, visit alumni.uml.edu/takeaseat or contact Carolyn Brooks, Director of Development at Carolyn_Brooks@uml.edu or 978-934-4482.



ALUMNI LIFE



ENTER-MURAL SPORT

The next time you visit TD Garden in Boston, don't miss the "Celebration of Belonging" mural inside the main Causeway Street entrance—painted by none other than art & design alumna Anna Dugan '13. The Salem, Massachusetts resident was selected as the inaugural TD Garden House Artist and received a \$10,000 commission to paint the vibrant mural, which covers two 300-square-foot walls on either side of the entrance.

CLASS NOTES

1970



Walter McGrail '70, '73 has worked in the field of education for 38 years, as a teacher and then as a principal in the

Acton-Boxborough Regional Public School District. For the last 10 years, he has been involved with the Collegiate Charter School of Lowell and currently serves as the president of its board of trustees. The school graduated its first class last June, with 29 graduates. He reports that one graduate went to the military, and the other 28 graduates went on to get a combined \$750,000 in college scholarships. McGrail just celebrated his 50th year as a certified ski teacher at Bretton Woods Ski Area in New Hampshire.

1972

George Perrault was honored by "A Hole in the Head Review," a quarterly journal of art, photography and poetry, as the recipient of the Charles Simic Poetry Prize. His work was selected from over 357 submissions globally. Said the editor of the journal, "I don't think I've ever quite read anything like George Perrault's poems. ... I loved how the poems moved, their pacing and jumps, how intimate their quickness made the feeling and thinking, even when it was oblique."



1975

Walter van Schalkwijk was honored by The Electrochemical Society, and an award was named after him—the Energy Technology Division Walter van Schalkwijk Award in Sustainable Energy Tech-

nology. Van Schalkwijk was also credited in the 2022 book "Long Hard Road: The Lithium-Ion Battery and the Electric Car" by Charles J. Murray for developing the first lithium-ion batteries built to a manufacturable design. "While I certainly didn't invent the lithium-ion battery—that honor goes to those who won the Nobel Prize in 2019, plus a few others—over my career, I have had collaborations with all three of those Nobel laureates."

1978

Terry Dostie is in his 47th year of officiating high school basketball and going strong. He also officiates volleyball, baseball and college softball. Dostie is the rules interpreter for high school baseball for the state of New Hampshire. He retired in 2013 after 33 years of teaching history.

1986

Michael McGovern has been working in the information technology and information security fields since 1988. For the last 20-plus years, he has worked in financial services, leading teams in both fields and helping organizations through their digital modernization. Currently, he works for The Summit Technology Group, an IT services and consulting organization based in Mechanicsburg, Pennsylvania. He is also the virtual chief information officer for three banks and a nonprofit in Pennsylvania.

1987

Mark Bedrosian is vice principal for academics at Cathedral High School in Boston, and proudly highlights Cathedral's 100% graduation rate and 100% college acceptance rate.

1988

Tony Listro was named by "The Healthcare Technology Report" to the list of The Top 25 Healthcare Technology Leaders of Connecticut for 2023. Listro is vice president of technology and site lead of Sever Pharma Solutions' site in Putnam, Connecticut. [1]

> CLOSE-UP CLASS OF 1977

BY KAREN ANGELO

Alumna's Aging Parents Spark Her Desire to Help Others



Janet Simpson Benvenuti '77, '82 thinks of her life in 10-year increments. "In my 20s, I focused on my education and establishing my career," she says. "I worked as a scientist while earning two graduate degrees. But then life happened."

Decades later, Benvenuti is far removed from the lab bench. Now a family health advocate, she has spent the past 20 years working to strengthen health and elder care, advising business and clinical leaders and coaching adults struggling to understand how best to support their aging relatives.

A first-generation college student, Benvenuti majored in chemistry at UMass Lowell.

"I was mentored by faculty who were actively interested in my work and career. That personal attention built my confidence as a scientist," she says.

After graduating, Benvenuti worked for Textron on projects for the U.S. Department of Defense. While at Textron, she returned to UMass Lowell to earn a master's degree in chemistry.

She realized she liked leading people and wanted to learn more about "the business aspects of running a company," so she applied and was accepted to Harvard Business School.

By age 29, with two chemistry degrees and an MBA, Benvenuti joined global pharmaceutical company Bristol Myers Squibb as corporate director of quality and productivity, organizing global project teams to improve business performance.

After the birth of her first child, Benvenuti realized that staying on the traditional corporate path was not the life she wanted. She left her job and set up a virtual consulting business, helping companies improve profitability and manage change.

When she was in her early 40s, Benvenuti's father was diagnosed with throat cancer. Her parents were in Massachusetts, while Benvenuti was living in New Jersey. Her father recovered, but his illness and her mother's heart disease and dementia prompted a move north.

"I was completely unprepared for the world of elder care, and I knew there were millions of people like me in the same situation. After my parents passed away, I decided to share what I learned and see how I might positively impact other people's lives," she says.

In 2004, Benvenuti launched the Circle of Life Partners, which provides customized education programs for employers, universities, professional organizations and communities on how to "navigate the aging journey."

Benvenuti also serves on the Kennedy College of Sciences advisory board. She says the foundation she built while at UMass Lowell helped her build a successful career.

"I deeply appreciate the education I got at UMass Lowell and the faculty mentors who gave me the confidence to make career choices that were right for me," she says.

> CLOSE-UP CLASS OF 1979/1987

BOB MALLOY: A LIFETIME OF ACHIEVEMENT

Dedicated. Knowledgeable. Caring. These are some of the qualities that Marcela Linares '12, '13 ascribes to her former professor, Robert A. Malloy '79, '87.

"Bob really cared about his students, and he made sure we stayed on track to succeed," says Linares, who earned master's degrees in innovation and technological entrepreneurship as well as plastics engineering from UMass Lowell. "For me, Bob was more than an academic mentor. He helped guide me toward my career path after graduation and gave me valuable advice regarding industry."

In recognition of his achievements in the field of plastics engineering, Malloy was honored with the Russell W. Ehlers Lifetime Achievement Award in May at NPE in Orlando, Florida.

With more than four decades of experience as a plastics engineering educator and researcher, Malloy received the Society of Plastics Engineers Educator of the Year award in 2009, and he was inducted into the Plastics Hall of Fame in 2012.

He is also a consultant in the areas of injection molding, polymer processing, product design and recycling of thermoplastics for companies and organizations, including P&G Gillette, Hewlett-Packard, Apple, Dell, Motorola, S.C. Johnson, Ford Motor, Delphi, Boston Scientific and many more.

Malloy holds 25 U.S. and European patents, has been the principal or co-principal investigator for more than 70 funded research projects or grants and has authored or co-authored more than 75 technical papers. He was also founding editor of SPE's Journal of Injection Molding Technology and is the author of the books "Plastic Part Design for Injection Molding" (published in 2010) and "Thermoplastic Injection Molding" (2024). —EA



1989

Peter Rayno was named to NH Business Review's 2024 New Hampshire 200 list as one of the top 200 most influential and on-the-rise business figures statewide. Rayno is the executive vice president and New Hampshire banking and lending director for Enterprise Bank, where he's been since 2004.



1990

Chris Shields was appointed to the board of directors at Reliq Health Technologies Inc., a global health care technology company that develops virtual care solutions. He has over 30 years of experience in the health care space and has held senior executive positions in startups and Fortune 500 companies.

1991

Brenda (Coughlin) Monahan '91, '11 recently graduated with a master's degree in public history from Southern New Hampshire University and was promoted to brand marketing senior manager at Dassault Systèmes.



Kristine Porcaro received a Beta Gamma Sigma 2024 Entrepreneurial Achievement Award, which recognizes individuals who develop,

organize and enhance successful new ventures. In 1997, Porcaro founded Lexington Advisors, and in 2000, she co-founded Lexington Wealth Management, where she started an Empower Women series to embolden women in their financial decisions. Porcaro is a board member of the Entrepreneurs Organization, the United Teen Equality Center and Pepperlane.

> CLOSE-UP CLASS OF 1982/1985

BY KAREN ANGELO

Inventor Alum Looks to Solve His Next Challenge: Sleep Apnea



As a young man growing up in India, Suresh Shah's destiny seemed etched in stone. His father owned a textile manufacturing business and expected Shah to take over someday.

After earning a chemistry degree from St. Xavier's College in Gujarat, he applied to a textile program at the Institute of Chemical Technology in Mumbai. On his application, he added his second choice—plastics technology.

It was a decision that would change the course of Shah's life.

"I didn't get accepted to the textile program, but I did get accepted into the plastics technology program," recalls Shah '82, '85.

After seven years of college in India, Shah wanted to study in the U.S. In 1980, he was accepted into the plastics engineering master's program at UMass Lowell. He continued on and earned a Ph.D.

"I had the best five years of my student life at UMass Lowell, which has the best plastics

engineering program in the U.S.," he says. "The M.S. and Ph.D. programs were excellent, with hands-on learning and supportive professors."

After graduating, Shah accepted a job with General Motors.

While working with development teams at Delphi Technologies, a division of General Motors based in Troy, Michigan, Shah received valuable advice from his director: For his inventions to see the light of day, he should always take on projects that would help the company's bottom line.

That guidance, combined with his education and ability to solve tough problems, led to a successful 30-year career in the automotive industry. Shah holds 32 patents and other intellectual properties.

He invented and introduced the all-plastic vehicle door inner module concept in 1993, which replaced 50 existing metal pieces. It was the first and most complex automotive component commercialized using gas-injection molding technology.

Shah received the Lifetime Achievement Award from the Society of Plastic Engineers automotive division, the SPE International Research and Technology Award and the Michigan Scientist of the Year recognition from the state. In 2021, he was inducted into the Plastics Hall of Fame by the Plastics Academy—the first inductee of Indian descent and the second from the automotive industry.

But he is not resting on his laurels. The retired Delphi senior technical fellow has turned his attention to solving a health issue that affects millions of people: sleep apnea.

Shah, who suffers from the sleep disorder, launched Apnea Tek Medical Devices with a goal of developing a more comfortable alternative to the CPAP machine. After six years of research and development, the device he developed is currently undergoing clinical trials.

Now 67, Shah remains active in the auto industry by serving on boards and co-chairing automotive conferences. Whenever he meets young engineers at events, he advises them to be creative and curious.

"Always ask questions, develop deep listening skills and be diplomatic as you work with team members," he says. "But the most important thing that you can do is to enjoy what you do." **UML**

> CLOSE-UP CLASS OF 1986/1990

BY BROOKE COUPAL

GAMERS, START YOUR ENGINES (with this alum's help)

After 500 grueling miles traveling at speeds approaching 200 miles per hour, NASCAR driver William Byron came out victorious at the Daytona 500 in Florida on Feb. 19. But unlike most drivers who learn the fundamentals of racing by getting behind the wheel of a car, Byron gained his initial skills through iRacing, a motorsport racing simulator.

And computer science alum Randy Cassidy '86, '90 is the mastermind behind the simulation's back-end infrastructure.

"There are fans of racing who want to experience what it's like to be their favorite driver, and that's something you get with this simulation," says Cassidy, iRacing's principal software engineer.

The simulation requires only a computer and an iRacing subscription, allowing anybody to experience the thrill of race-car driving from home. According to one industry estimate, the racing simulation market is expected to grow from \$500 million in 2024 to \$1.1 billion by 2030.

iRacing also appeals to professional drivers, such as Byron and Dale Earnhardt Jr., thanks to the realistic nature of the simulation. The company's team, based in Chelmsford, Massachusetts, visits racetracks around the world, using a laser scanner to record every detail of the tracks, from the paint lines to curves. They then program the data into the simulation to create realistic replicas of the tracks.

Cassidy was working on the technology behind the simulation long before joining iRacing at its inception in 2004. He spent 10 years as a senior software engineer for the now-defunct computer game developer Papyrus Design Group, where he developed artificial intelligence software that enabled computer opponents to operate within racing simulation games. The co-founder of Papyrus, Dave Kaemmer, went on to co-found iRacing with John Henry, the principal owner of the Boston Red Sox; they bought back the technology created at Papyrus and used it as a base for iRacing.

Cassidy says his success as a software engineer started at UMass Lowell.

"In addition to all the theory that you learn in the computer science program, you get a lot of hands-on experience; I've found that that's really essential," he says.



1992

Andrea (Dufree) Pierce has started a new role as a field application scientist with Streamline Scientific. She is responsible for training and education in the area of molecular testing for internal and external clients throughout the United States.

1993

Terri Pastori was recognized by Best Lawyers as the 2024 Lawyer of the Year for employment law - management for the Concord, New Hampshire, area. Only one lawyer in each practice area and designated metropolitan area is honored.

Thomas Ryder '93, '01 was recently promoted to town engineer for Needham, Massachusetts.

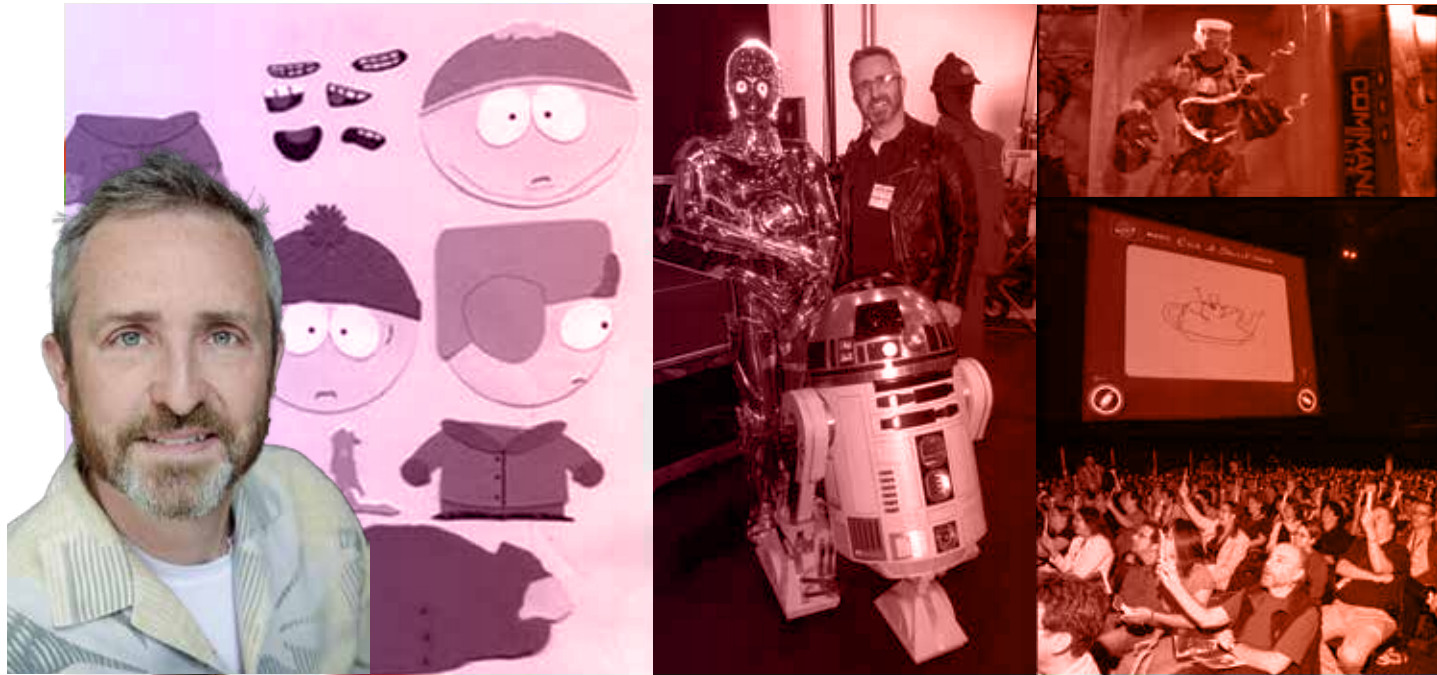
Marianne (DeMeo) Harris has been appointed chief clinical officer at Outer Cape Health Services' community health center. A native of Newton, Massachusetts, she is a board-certified family nurse practitioner and nurse executive. She has more than three decades of experience with inpatient operations, as well as clinical leadership in pediatric and adult emergency services, urgent care and other ambulatory settings. Previously, she held adjunct faculty positions at Case Western Reserve University and Feinberg School of Medicine at Northwestern Medicine in Chicago.



1994

Carlisa Choate has joined the YMCA of Greater Nashua as the executive director of education. Prior to joining the Y, she was director of Kings Kids Childcare Center, located in Pelham, New Hampshire, for nearly 20 years.

Continued on page 54



> CLOSE-UP CLASS OF 1989

BY MARLON PITTER AND BROOKE COUPAL

From Star Wars to South Park

Terrence Masson '89 Combines Art and Technology to Revolutionize Entertainment

Terrence Masson '89 has always been focused on “doing something that’s never been done before.”

As an industry-leading computer graphics and visual effects expert, Masson has revolutionized TV, film and video games since the early 1990s. His work, featured in franchises like “Jurassic Park,” “Star Wars” and “South Park”—and in various games for the original Xbox console—has pushed the boundaries of what was originally thought possible.

For Masson, timing was everything. A self-proclaimed “tech geek,” Masson enrolled in the computer science program at UMass Lowell in 1984, the same year Apple introduced the Macintosh, a personal computer with a built-in screen and mouse.

“In the ’80s, technology started being developed that allowed for visual effects to be done on the computer,” says Masson, who switched his major to graphic design after having an epiphany that he would not need to write his own software to make computer graphics. “The timing was perfect to get into visual effects.”

Masson got experience working on Macintosh and Commodore’s Amiga computers as an undergraduate.

“Some fine artists hated computers at first, but the ones who embraced them led the pack,” says Masson, who, soon after graduating with a bachelor of fine arts degree, worked at Industrial Light & Magic, where he used computers to animate pixie dust for Steven Spielberg’s movie “Hook” and make cloud cars fly in George Lucas’ “Star Wars” movies.

Just like with computers in the ’80s, Masson feels it’s important for visual effects artists and computer graphic designers to embrace today’s popular technological advancement: artificial intelligence.

“AI is just the latest disruption that we have to adapt to,” he says. “It really is an opportunity to do something amazing that we never would have thought of before.”

Masson sees AI as a useful tool that can eliminate repetitive, manual tasks. While working on “Hook,” Masson used a computer to manually remove the appearance of wires connected to late actor Robin Williams

during flying sequences. Now, AI exists that can automatically remove wires from movie scenes.

Eliminating such tedious tasks means entry-level jobs for technical artists are changing. Masson, who serves as the MFA Computer Arts Department chair at the School of Visual Arts in New York City, is training his students on more high-level tasks in addition to AI, so they’re prepared to enter today’s workforce.

“I tell my students, ‘You’re not going to lose your job to AI, but you will lose your job to somebody else who’s learning and using these AI tools,’” he says.

Masson is learning about AI’s capabilities through experimentation. He is working on a short live-action documentary, in which he is using AI to create potential storyboards for the film.

“AI can automatically do work that would normally take us months,” says Masson, who adds that “AI is nothing by itself. It still has to be artist-driven.” [UML](#)

> CLOSE-UP CLASS OF 1990

BY KATHARINE WEBSTER

Terrance McMahon is All About ‘Algorithms’ and AI

Terrance McMahon, who left his studies in criminal justice and his place on the UML baseball team a year shy of graduation to marry his pregnant girlfriend and find work, keeps reinventing himself.

Now, McMahon is all in on teaching people how to use AI to manage their health, acquire knowledge and succeed in business. In every phase of his life and career, he’s found mentors with great formulas or, as he calls them, “algorithms” for success—and he’s come up with a few himself.

That began when, desperate for a job to support his new family, he started selling life insurance door-to-door for Prudential. An older salesman taught him the “tuck a buck a day away” pitch, a sales algorithm that worked. Over time, McMahon rose to become CEO of Mass Mutual-Northern New England.

But starting in college, McMahon had developed an unhealthy algorithm, too: drinking to cope with panic attacks. By his junior year, he was working as a bartender and throwing epic parties for his friends and teammates. Coach Jim Stone called him out on it. “He says, ‘You’re a leader, but you’re a leader in the wrong way,’” McMahon says. “I’ve never forgotten that.”

Still, McMahon continued to drink and gain weight until 2016, when he suffered acute liver failure. Told first that he was too ill for a transplant and then too far down the waiting list, McMahon was preparing to die when, at the last possible minute, he was offered the liver of a young prisoner who had died—a liver that dozens of other people had turned down for fear it was damaged by illness or drug use.

The liver was healthy, and soon, so was McMahon. He stopped drinking, gradually lost weight and began to exercise. He came up with a new, positive algorithm to replace his addiction to alcohol: connecting with and serving others.

The best way to do that, McMahon decided, was to quit his job and share his system for self-transformation. He broke it down into a 12-week program and wrote a book about it, gave a TedX talk, spoke at events and created a podcast, TikTok videos and a coaching app. “Someone had to die so that I could live,” McMahon says. “Now, everything I do is a bonus. That’s why I say I’m public property.”

Next, McMahon began sharing lessons he had learned in business, including how to be an entrepreneur from anywhere. In December 2023, he took his own advice and moved himself and his consulting business to Dorado Beach, Puerto Rico. “I live on the beach, I’ve traveled all over the world, I’ve made more money and I’m healthier,” he says.

McMahon’s latest venture is offering affordable mass trainings in how to use generative AI. He gave his first live training to 600 people in Las Vegas in January 2023, which won him an invitation to do a second event in the Bahamas with “Shark Tank” investor Steven O’Leary.

Now, McMahon is translating his method into multiple languages and training a group of AI trainers, with the goal of teaching 1 million people basic AI skills in 2024. He also continues to give live presentations to CEOs and educators, including at UMass Lowell.

McMahon believes that by 2025, AI skills will be a job requirement for new college graduates, so it’s especially important to train students and young people in how to use it for positive change.

“With all the white hats trying to use it to elevate humanity, there are dark hats using it to steal and cheat,” he says. “But the heroes are here to offset the cheaters, so that the greater good prevails.” [UML](#)

“Someone had to die so that I could live. Now, everything I do is a bonus. That’s why I say I’m public property.”

—TERRANCE MCMAHON





> CLOSE-UP CLASS OF 1992

BY KATHARINE WEBSTER

STATE OF HER ART: Martha Mayo '92 Collects—and Supports It

When she was still a high school student in Falmouth, Maine, Martha Mayo '92 paid \$2.50 for a print by a then-unknown artist in Portland, Jon Legere. She spent another \$2.50 to frame it.

That was Mayo's first art purchase, but she's been buying original art from "starving artists" and supporting the arts ever since. The retired director of UML's Center for Lowell History now owns nearly 500 original artworks, most of them by local artists, including UML students and faculty members.

"I just buy art. I feel like it's my job," jokes Mayo, who has paintings, photos, collages and small sculptures on every wall, shelf, counter and tabletop in her Lowell home. "I'm eclectic. I like anything, everything. I buy what speaks to me."

She has volunteered for, donated to and served on the boards of numerous arts and community organizations, including the Brush Art Gallery and Studios, the Arts League of Lowell and Western Avenue Studios. She has also endowed funds at UMass Lowell to support the Art and Design Department; at the University of Maine to support the library's special collections; and at the Greater Lowell Community Foundation to support art and education.

At UML, she established the Martha Mayo Endowment Fund for the Department of Art and Design with a \$25,000 gift in 2017 and then pledged another \$100,000, matched by \$50,000 from the state. She recently included another \$100,000 for the fund in her estate planning.

Mayo, who was hired as a special collections librarian in 1972, earned a master of education degree at UML in 1992.

As an archivist, educator and historian, she worked with a team to start the former Lowell Museum in Wannalancit Mills. Later, she provided assistance, including historical photos and documentation, to the late U.S. Sen. Paul Tsongas and others working to establish Lowell National Historical Park, which opened in 1978.

With the merger of Lowell Tech and Lowell State and the university's growth, the university library's special collections expanded as well. In 1988, at the urging of Tsongas and the national park's leaders, the university agreed to move the library's historical collections to a new building in the national park's Patrick J. Mogan Cultural Center.

"They really wanted a lot of the special collections to be downtown and accessible to high school students and external researchers, as well as UMass Lowell students," says Mayo, who oversaw the move and presided at the Center for Lowell History until her retirement in 2015.

Continued from page 51

1996

Steven DeSimone recently earned tenure at the College of the Holy Cross and was promoted to associate professor. He also recently became president of the Board of Directors of Operation Delta Dog, a nonprofit based in Hollis, New Hampshire, that rescues dogs and trains them to be service dogs for veterans suffering from the effects of PTSD, traumatic brain injury and/or military sexual trauma.

1998

Josh Blagg was named principal of the Lt. Col. Moses Parker Middle School in Chelmsford, Massachusetts. [2]

John Daniels '98, '01 was named vice chancellor for research at the University of North Carolina Charlotte. A member of the faculty for 23 years, he previously led the Department of Civil and Environmental Engineering as chair from 2012-22. He also served as a program director in the Directorate for Engineering at the National Science Foundation, where he was responsible for research within geotechnical and geoenvironmental engineering, engineering education, engineering research centers and a variety of cross-disciplinary programs. [2]



1999

Scott Ryan was named general manager at Trelleborg Healthcare & Medical for its Northborough Biopharma Center of Excellence in Massachusetts. Trelleborg is a leader in engineered polymer solutions that seal, damp and protect critical applications

Continued on page 57



- 1. TONY LISTRO '88
- 2. JOSH BLAGG '98
- 3. JEFF ANGELEY '99
- 4. DANIELLE '06 AND MATT NOYES '23



> CLOSE-UP CLASS OF 1999

A World Away From Where He Started: Omar Hoda '93 Looks Back—and Gives Back

When Omar Hoda '93 was a child, his family moved from its native Pakistan to Malaysia and then to Malta in search of better economic opportunities. Later, his older sister came to New England for college, and Hoda followed suit. His younger sister wasn't far behind.

"As an international student, you choose a college in the U.S. by saying, 'Where is someone I know?' And then you draw a radius around that," he says.

UMass Lowell was also "affordable and accessible" and had a strong computer science department, Hoda says.



He stretched his college budget further by sharing an inexpensive off-campus apartment with two other students and getting a job washing dishes at a campus cafeteria.

"I was like, 'They pay me and I get free food?'" he says. "Free food was a win."

Hoda threw himself into his studies and graduated in three years. While at the university, he co-founded the campus chapter of the Association for Computing Machinery. Jim Canning, then professor and chair of computer science, mentored the students and helped them find money to host coding competitions. Hoda says the communication and leadership skills he developed at the time got him where he is today.

"Jim Canning was just a magician," he says. "He got me really learning the muscles of leadership and being in the front of the room."

After graduation, Hoda took a job with

a startup networking company. Within a couple of years, he began studying for a master's degree in computer science at Boston University at night. He also got a promotion to manager—and realized he wanted to hone his leadership skills.

Shortly after Hoda obtained his green card, he married, and he and his wife both returned to school. She earned a law degree and became a patent attorney; he studied for an MBA in entrepreneurship at Babson College. While there, he got a business consulting internship at Booz Allen and loved it.

Degree in hand, Hoda took a consulting job with Adventis for a couple of years and then moved to Monitor Group, a strategy consultancy based in Cambridge. Soon after Deloitte Consulting acquired Monitor Group in 2013, he rose to partner.

BY KATHARINE WEBSTER

From the start of his consulting career, Hoda focused on the industrial and manufacturing sectors, and he now specializes in automotives. His computer science background has proved invaluable as he helps manufacturers navigate rapidly evolving technologies, including the transition of the automotive industry to autonomous and electric vehicles.

On his 50th birthday, Hoda decided it was time to look back on his journey—and to give back. For the past two years, he has served on the executive board of the Automotive Hall of Fame. At UMass Lowell, he donates to the Strive Food Pantry because he's aware of how much he would have struggled without his campus dishwashing job. He also serves on the Kennedy College of Sciences advisory board, aiming to help a school that was critical to his success.

"I reflect on where I am now, and it's just a world away from where I started. I'm so grateful for my time at UMass Lowell and the lessons that I still carry with me," he says. "I have such a blessed life now." [UML](#)

“I reflect on where I am now, and it's just a world away from where I started. I'm so grateful for my time at UMass Lowell and the lessons that I still carry with me. I have such a blessed life now.”

—OMAR HODA

Continued from page 54

in demanding environments. Ryan has more than 35 years of progressive diagnostics, clinical manufacturing, quality and process development leadership experience. [↗](#)



Jeff Angeley organized the New Bedford Roots & Branches Festival, a one-day event dedicated to acoustic music boasting the slogan, "Everything Acoustic by and for the People." The event is devoted to ensuring that the various diverse folk communities of the city are represented on the performance schedule, and it aims to have a positive impact on the downtown New Bedford, Massachusetts, community. [\[3\]](#)

2001

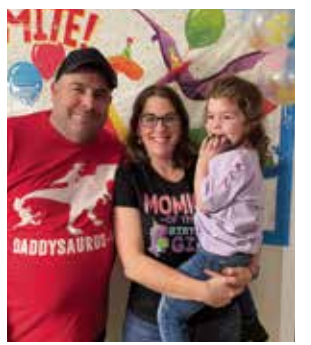
Derek Costa '01, '03 is superintendent/director of the Bristol County Agricultural High School in Dighton, Massachusetts. He has also served the local area for many years as a youth baseball coach in Berkley, Massachusetts, an assistant volunteer coach for the Somerset Berkley High School Baseball team, participation in the Berkley K-8 strategic planning committee and, most recently, assisting the town of Berkley in the development of its master plan. He and his wife, Kristin (Lamond) Costa '99, have two children.

2006

Danielle (Niles) Noyes '06 and her husband, Matt Noyes '23, both longtime New England TV meteorologists on stations such as NBC10, WBZ and NECN, joined forces to launch a weather website and app called 1°Outside. The couple has three children. [\[4\]](#)

2007

Nicole Orlando Smith reports that since graduating, she earned a master of education degree in counseling psychology and became a licensed mental health counselor in Massachusetts. She married her husband, Kris, in 2018, and the couple welcomed their daughter, Samantha, in November 2019. They recently purchased their first home in Fremont, New Hampshire. Orlando is working as a psychotherapist for Tufts Medical and Lowell General Hospital and as a clinician for Spectrum Health Systems, where she assists clients on their roads to recovery. "A lot has changed, but I'll always be a River Hawk!" she says. [↗](#)



2008

Mark Panjwani, a police lieutenant in Beverly, Massachusetts, graduated from the FBI National Academy. Panjwani is the fifth Beverly police officer to complete the prestigious 10-week FBI National Academy. Fewer than 1% of officers across the country have an opportunity to take part in the program, which teaches advanced communication, fitness and leadership skills. He has been with the Beverly Police Department since 1997 and has also served as a paramedic for 35 years.

2010

Aaron Currier is area director of sales at Hyatt Centric Faneuil Hall Boston. "Coming back to Boston has been a long-held dream, both professionally and personally," he says. "I'm excited to be part of such a dynamic team at Hyatt Centric Faneuil Hall." He has more than 26 years of experience in the hospitality industry.

> CLOSE-UP CLASS OF 1997

BY ED BRENNEN

INTO THE WOODS

All-American Wrestler Sean Harrington '97 Pins Down a New Career

Kari Mitchell joined the law firm of Neubert, Pepe, & Monteith, P.C., as counsel. She is based in its White Plains, New York, office and represents debtors, creditors, committees and trustees in bankruptcy matters. Mitchell was formerly a trial attorney with the United States Trustee Program, an arm of the Department of Justice overseeing bankruptcy cases, which she joined through the Attorney General's Honors Attorney Program. [↔](#)



Kyle Teixeira is the chief operating officer of Root & Bloom Cannabis, where he helps shape the company's strategic direction and oversees operations. He has over a decade of experience in the consumer packaged goods manufacturing industry, including in roles at such companies as Cedar's Foods, Concord Foods and Nestlé. Cannabis Business Times recently named Root & Bloom Craft Cannabis as the No. 1 company nationwide in its 2024 Best Cannabis Companies to Work For rankings. [\[5\]](#)

2012

Whit Love joined Acentech to help broaden its expertise and consulting capabilities in audiovisual systems design, security systems design, technology advisory services and smart buildings. Love is an audiovisual and sound systems designer with a background in operating, designing and deploying audiovisual experiences for concert venues, convention centers, worship spaces and educational facilities. [\[6\]](#)



Sean Harrington '97 traces his finger along the grain of one of his most prized pieces of wood—a 201-year-old sugar maple that a farmer needed to have removed from his property in Alstead, New Hampshire—and pauses at a blip in the tree's rings.

"This tap hole here is about 125 years old," Harrington says. "There was a Civil War militia training right next door to Alstead, so Union soldiers may have been drinking maple syrup from this tree."

Harrington's historical hypothesis is just one of many reasons the business alum is so excited about his new venture, Wolf Tree Wood, a custom furniture shop in his hometown of Dracut, Massachusetts.

"It's been a long journey to get to this point. I didn't see it coming," says Harrington, a two-time All-American wrestler at UMass Lowell who spent four years at the U.S. Olympic Training Center in Colorado, coached the sport for nearly a decade at Boston University and Harvard and launched his own gym in Lowell.

In 2019, Harrington gave up coaching to spend more time with his family (he and wife, Jacqueline, have two teenage daughters, Madeline and Sophia). Harrington thought he would go into real estate development—until a neighbor asked if he could help remove a dying 225-year-old white oak tree from his yard.

It was the first of six trees that Harrington has acquired so far for his business. After drying the trunks in a kiln, he has them cut into sections and then sands each piece by hand. They lean, like artwork, against the walls of his shop, a former diesel engine garage.

"I would argue that this is the most beautiful collection of white oak and sugar maple in the world," says Harrington, who has developed his own grading system for the wood. He plans to sell unfinished pieces to woodworkers for around \$10,000 each. Other pieces he will finish himself and turn into dining room tables that he says could fetch around \$25,000.

Ever since he built his first treehouse at the age of 12, Harrington has had an appreciation for trees. He will only harvest trees that are dying or that need to be felled for safety reasons.

"Cutting down a tree for profit is 100% against my philosophy," he says. But Wolf Tree Wood, named for "lone

wolf" trees that are older and taller than others in the area, is more than a high-end furniture business. Harrington hopes to teach students how old growth trees (more than 150 years old) communicate with each other via underground pathways of mycelium and by releasing chemicals in the air when under attack by insects and fungi.

"Scientists know a lot of this stuff, but there's an intelligence in the trees that we don't quite understand," says Harrington, who is working with Joy Winbourne, an assistant professor of environmental, earth and atmospheric sciences at UML, to have students analyze the DNA of his trees to learn about past atmospheric and environmental conditions.

After being detached from his alma mater for many years (UML dropped wrestling in 2000), Harrington was happy when Athletic Director Peter Casey reached out to him in 2018 about re-engaging with fellow wrestling alumni. Harrington now serves on the Athletic Advisory Board.

"I can't tell you how enjoyable and rewarding it has been to work with athletic programs, share advice and take in information about different aspects of the university," says Harrington.

He sees a connection between UML's rise to NCAA Division I competition and its recent Wall Street Journal ranking as the top public school in Massachusetts.

"There are a lot of athletes at the school who put the UMass Lowell emblem on their chest and are a face of the university," he says. "I know what those athletes and coaches are going through, and to see that level of commitment gives me a ton of pride."

Harrington didn't shine on the wrestling mat until his senior year at Dracut High School, when he went undefeated. It was too late for most college coaches to recruit him, but he did catch the eye of Tim Heitzman, who was taking over UML's Division II program that year.

"I owe that man everything. He put everything into me, so I wanted to give everything I had," says Harrington, who went 125-25-2 during his UML career. "My experience and my path in life is because of UMass Lowell. I'm eternally grateful." [UML](#)

2013



Andrea Beth (Elika) Levy was appointed vice president of finance and operations at the Greater Phoenix Chamber in Arizona. She has more than a decade of experience in financial leadership as a certified public accountant, certified fraud examiner and chartered global management accountant. She also serves as a designated council member for the American Institute of Certified Public Accountants, chair of the Arizona Society of CPAs and audit committee member for the Institute of Internal Auditors, Arizona. [↔](#)



Jessica Greene '13, '14 was selected as a 2023 Women to Watch Award winner by the Massachusetts Society of Certified Public Accountants. A governmental manager at Powers & Sullivan LLC, Greene was one of seven women selected. She is also a representative of MassCPAs and serves on the Accounting Advisory Board at UMass Lowell. [↔](#)

2014

Lynn Berry has been a domestic violence probation and parole officer for the last four years in Kansas City, Missouri. She has a 7-year-old son who is in the first grade.

Thomas Scotti '14, '16 was sworn in as the town of North Hampton, New Hampshire's new deputy police chief. He has 20 years of law enforcement experience, having spent 15 years with the Hudson, New Hampshire, police department as a patrolman, detective and detective sergeant. He also served as a captain in the Litchfield Police Department. [7]

2015

Arjun Mehta was working as a technical program manager at Google since 2022, when he joined the tech industry after seven years in the financial industry. "I would like to thank the UML MBA program and its faculty for helping me achieve this career change," he says.

2016



Barry Erlandson '16, '18 was promoted to national sales manager at Wintriss Controls Group, a manufacturer of press automation, die protection and safety controls for the metal stamping industry, and OEE/data collection software for all discrete manufacturing.

2017

Russell Tedford of Hancock Associates has passed the professional engineering exam and is now a licensed professional engineer in Massachusetts. He joined Hancock Associates in 2017 as a field surveyor and was promoted to staff surveyor and staff engineer; he is currently one of the firm's project engineers.



“We’d love to have UMass Lowell students.”

> CLOSE-UP CLASS OF 2006

BY KATHARINE WEBSTER

Becky O’Hara ’06 Hits a Home Run

Baseball Research Center Alumna Heads Up R&D at Rawlings

All through elementary and high school, Becky O’Hara ’06 played baseball and softball. Now she oversees the design of bats, balls, helmets, chest protectors and other gear for both sports as director of research and development at Rawlings Sporting Goods—thanks to a connection she made with the company as a graduate research assistant at the UMass Lowell Baseball Research Center.

“I went straight to work for Rawlings,” says O’Hara, who earned a master’s degree in mechanical engineering. “They had an opening for a bat engineer at the time that I graduated.”

But her path wasn’t always so clear.

Growing up in Providence, Rhode Island, O’Hara also excelled at ice hockey, playing defense on both her high school’s varsity squad and a girls club team, the Rhode Island Panthers. When she was applying to colleges, she looked for schools where she could continue playing hockey while studying engineering.

“Women’s hockey and engineering are not exactly a common pairing, so it limited the schools I could go to,” she says.

McGill University in Montreal had just promoted its women’s ice hockey team from club to varsity status, and O’Hara was offered a spot. The team came in second at nationals one year and third in another. But as she finished up her senior season, O’Hara still wasn’t sure exactly what kind of engineering job she wanted.

She began by looking for jobs in biomedical engineering and sports product design. That’s when she ran across an opening for a lab manager at the UML Baseball Research Center. She knew she wasn’t qualified, but she emailed the center’s director, Prof. James Sherwood, to see if there was another position she could apply for.

Sherwood, now dean of the Francis College of Engineering and editor-in-chief of the Journal of Sports Engineering and Technology, suggested she work in the center while earning a specialized master’s degree.

Sherwood founded the Baseball Research Center in 1999 under the sponsorship of Major League Baseball and Rawlings. As a graduate research assistant from 2004 to 2006, O’Hara tested and certified bats for the NCAA and MLB.

While talking to people at Rawlings about a possible internship, O’Hara connected with the company’s then-head of research and development, Art Chou. He offered to sponsor her master’s thesis: testing and characterizing a wide variety of bat prototypes.

O’Hara graduated into the bat engineering job and never looked back. Four promotions and nearly two decades later, she’s head of research and development for the whole company.

She still plays slow-pitch softball, and she helps to coach her daughter’s softball and son’s hockey teams. She has also maintained her ties to the Baseball Research Center, which continues to test Rawlings equipment for both the company and MLB. And at Sherwood’s invitation, she has agreed to serve on the advisory board for SCORE, the UML Sports Collaborative for Open Research and Education.

O’Hara also encourages students in the new sports engineering minor and the sports studies minor or concentration within American Studies to apply for co-ops with Rawlings. The St. Louis, Missouri-based company hosts four co-ops each year.

“We’d love to have UMass Lowell students,” she says. [UML](#)

2018

Michael Green joined K-array, USA as the newest addition to the company's technical support team. He brings with him a wealth of knowledge and a passion for audio technology. ↗



2019

Lena (Dziechowski) Arango '19, '20 started a new position at alliantgroup in Houston, Texas. She formerly worked as an on-air meteorologist broadcasting Houston weather for two years at Fox 26 Houston. [8]



Nick Pelletier '19, '22 is a real estate agent with Prestige Homes Real Estate, helping first-time home buyers and investors. He also owns and operates a property

management company. He was awarded Realtor of the Year in 2023 with Prestige Homes.

Mohammed Fayyaz Rashid reports that he moved to the U.K. and joined the NHS, U.K. ↗



> CLOSE-UP CLASS OF 2016

BY ED BRENNEN

BUILDING A BETTER LOBSTER TRAP

Plastics engineering alum Cormac Hondros-McCarthy '16 grew up on the water, spending summers at his family's place in Bar Harbor, Maine.

When he and his dad would take their small sailboat out on Frenchman Bay, Hondros-McCarthy remembers their rudder sometimes getting caught on the lines for lobster traps sitting on the seabed some 300 feet below.

Fast-forward several years: Shortly after graduating from UMass Lowell, Hondros-McCarthy found himself in Malaysia, competing in an engineering prototype hackathon with a few co-workers from DEKA, a medical device company in Manchester, New Hampshire.

"We wanted to do some free-spirited engineering, so we applied, got in and took two weeks off for the trip," he says.

The hackathon required teams to address one of five areas of ocean conservation. Hondros-McCarthy's team chose to reduce "ghost gear"—the fishing nets, lines and traps that get lost at sea during storms. They came up with a rough variation of a ropeless lobster fishing system that utilizes buoyancy to bring the trap to the surface.

Their prototype won the \$4,000 first prize—and it was the start of a ropeless fishing journey, which sparked the interest in the startup LiftLabs that Hondros-McCarthy

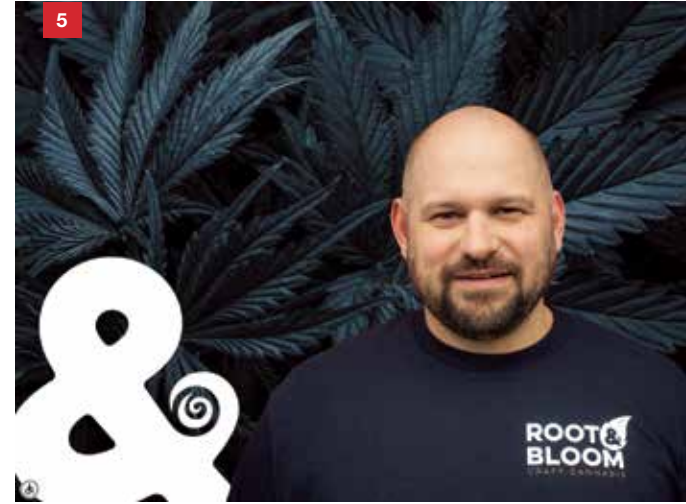
now owns and operates in his hometown of Lowell.

"When you take a step back, it's really gratifying to be doing this every day," Hondros-McCarthy says while giving a tour of his two-story workshop, which he built in the detached garage behind the house where he lives with his wife, Maureen, and their 2-year-old son.

Hondros-McCarthy began working on ropeless fishing six years ago. After getting three grants from the National Oceanic and Atmospheric Administration totaling \$514,000, he quit his senior manufacturing engineer job at FLIR Systems in North Billerica, Massachusetts, in 2021 to devote all his time to his idea.

Two of the NOAA grants are from its Bycatch Reduction Engineering Program, which aims to protect sea life that is caught in fishing gear. In the case of lobster fishing, it's to protect the North Atlantic right whale, one of the world's most endangered large whale species, with fewer than 350 remaining. Hondros-McCarthy says more than 80% of the whales have entanglement scars from fishing lines.

"It's a very unique opportunity to be able to start a company where the government wants it to happen and they're willing to fund the development," says Hondros-McCarthy.



5. KYLE TEIXEIRA '10
6. WHITE LOVE '12
7. THOMAS SCOTTI '14, '16
8. LENA ARANGO '19, '20
9. SIMONE PEIRONNET '22, '23

Rebecca Scaer has joined the Boston office of Syska Hennessy Group. She is a sustainability specialist who is well-versed in wellness and energy efficiency in buildings. She has served as a consultant on numerous projects related to compliance with the city's local green building and climate resiliency guidelines. ↗



2020

Kayleigh Bergh graduated from the Boylston Police Academy and was officially sworn in as a Haverhill, Massachusetts, police officer by former Mayor James Fiorentini in a ceremony held at City Hall.

2022

Simone Peironnet '22, '23 accepted a job as a health physicist at Boeing in Seattle before finishing her master's degree in radiological sciences and protection. At UML, she worked as a health physics radiation specialist in the Radiation Safety Office, where among other things, she learned how to properly ship hazardous materials to companies that conduct experiments within UML's reactor, including Boeing. "I brought up in my interview that some of the materials they received were shipped by me," she says. "My employer told me that was a big boost on my resumé." [9]

2023

Ben Morris accepted a position as service associate at Genelec USA, the U.S. distribution arm of Finland-based active studio monitor manufacturer Genelec. He previously worked at a local recording studio as well as a tube amplifier repair shop.

Casey Tiernan is pursuing a master of public health degree at Southern New Hampshire University.

> CLOSE-UP CLASS OF 2015

Theatre Alumna's Encore at UML Helps Students Find Their Light

From the back of the darkened 500-seat Comley-Lane Theatre on South Campus, UML alumna Melissa Allen '15 watches student actors rehearsing on stage, occasionally interrupting to give directions. The production is a collaboration between UML and Haverhill High School, where Allen is a drama teacher. She started the partnership three years ago with Prof. Shelley Barish of the Theatre Arts Department, whom Allen studied as an undergraduate.

"We were brainstorming ways to bring performances back on stage during COVID—there wasn't a lot happening in-person—and we thought it would be cool to bring some of my students to experience what it's like here on the UML campus," says Allen, who earned a B.A. in English with a theatre arts concentration.

So, in 2022, Allen and Barish formed an ensemble cast and produced a staged reading of a collection of short plays about the pandemic. They have followed up every year since, with cast members from Haverhill High and UML working alongside each other.

Allen, who has taught at Haverhill High since 2017, feels "a bit of nostalgia" bringing her students to campus.

"The arts program at UML gave me every opportunity to round out my education," says Allen, who spent summers at the Stella Adler Studio of Acting in New York and Berkshire Theatre Festival in Stockbridge, Massachusetts.

She also met her husband, music studies alum David Allen '15, in one of Barish's classes. They have a 1-year-old son, Luca.

"I really made the most of my time here," Allen says before returning her attention to the rehearsal stage.—EB

Theatre arts alumna Melissa Allen '15, center, leads her Haverhill High School students through a warmup exercise on the Comley-Lane Theatre.



> CLOSE-UP CLASS OF 2015/2018

SHE NAILED IT

It was a race against the clock as Emily Adey '15, '18 poured flour into a mixing bowl, kicking off her attempt to recreate a multilayer cake that spills out sprinkles and candies when a person cuts into it.

Actor and comedian Ron Funches called Adey's version of the cake "pure chaos" with its uneven frosting and drooping structure, before declaring, "I love it."

Adey, a mathematics alumna and amateur baker, appeared on Netflix's inaugural season of "The Big Nailed It Baking Challenge." She made it to the top five before being eliminated.

"I can follow a recipe like no other, and I think that comes from my mathematics background," says Adey, who is an engineering program manager for Advisor360. "It was definitely a once-in-a-lifetime experience. The fact that I was part of a Netflix reality show and baked with these amazing bakers—I'm very grateful for the opportunity."—BC



> CLOSE-UP CLASS OF 2019

Mother-Son Alumni Duo Aim to Transform Views on Healthy Food

Stephen Sarrouf '19 and his mother, Sherri Laffey Sarrouf '85, are no strangers to healthy habits.

The latter opened SLS Fitness Strength and Conditioning Center in Lowell, Massachusetts, in 2010, and Stephen has worked in various roles there. For years, they both have co-chaired Fitness for a Cure, one of the largest St. Jude fundraisers in New England.

The pair recently expanded their wellness efforts to the food space.

"Stephen's a foodie and I'm a health nut, so we wanted to put the two together," says Sherri, co-owner of Dragonfly Café on Thorndike Street in Lowell, which opened last year.

"Dragonflies represent transformation, and we want to transform the way people see gluten-free and healthy food," says co-owner Stephen, who serves as general manager.

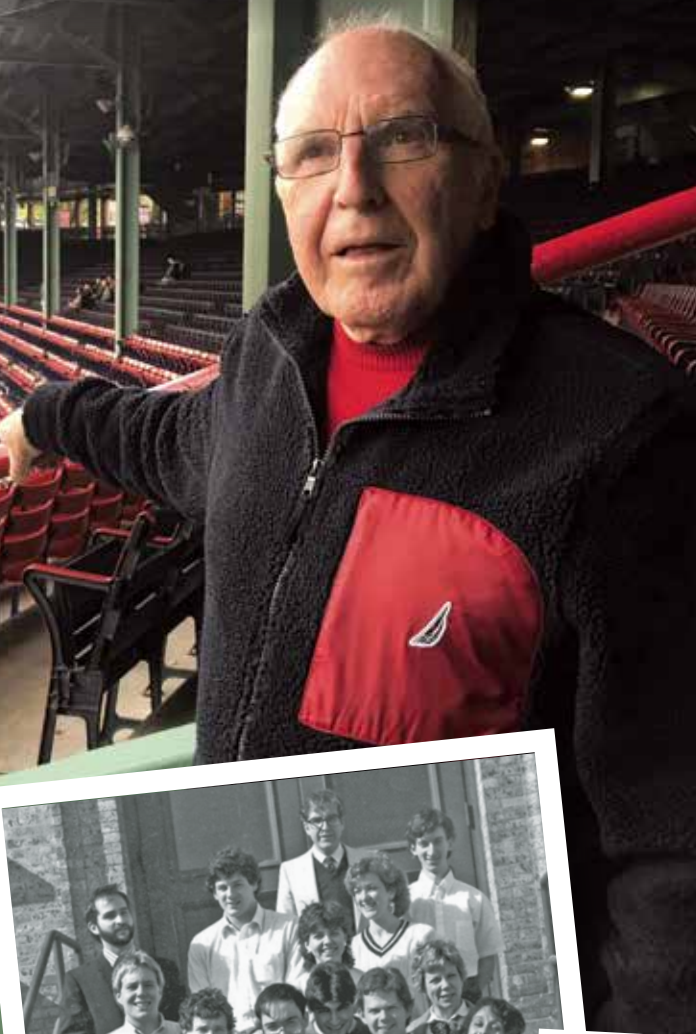
"As a Lebanese American, some of my favorite memories are of being at a table eating Mediterranean food with family and friends," he says. "As I got older, I started to realize how difficult it was to find grab-and-go food that was as tasteful and vibrant as it is healthy."



BY KATHARINE WEBSTER

IN MEMORIAM

Dean Bergeron,
Co-Founder of UML's Model U.N.



Emeritus History Prof. Dean Bergeron, who died in December, leaves a legacy that extends from UML's Model U.N. program to the lives and careers of many alumni.

Bergeron started the Model U.N. team in 1984 at the request of Kathleen Curtin '86 and drove its development for nearly three decades, teaching rigorous courses in international relations, advising the team alongside his late friend and colleague, Political Science Prof. Joyce Denning, and establishing a fund to support it with Denning.

Over the past 40 years, UML students have won countless team and individual awards at Model Arab League and Model U.N. conferences in the U.S. and abroad. Many graduates of the program have gone on to influential careers in politics and government using the research, public speaking and analytical skills that Bergeron and Denning taught, including former National Security Council member and counterterrorism expert Roger Cressey '87 and former Donald Trump campaign manager Corey Lewandowski '95.

Toward the end of Dean's life, as he lay in the hospice ward at Massachusetts General Hospital, dozens of [his] former students came to see him, thank him and laugh with him one last time.

"Dean always had the time and the mindfulness to be present with us," says Ohio State University Asst. Prof. Don Leonard '02, '04, who first called Bergeron his professor, then his mentor and—after Bergeron rented him a room while he pursued a master's degree—his dad. "Students were his family, and he treated us like family. He gave us a lot of unsolicited advice, but always from that place of love and concern."

After Leonard earned a disappointing grade in Politics of the Middle East, his first class with Bergeron, Bergeron called him a "smart slacker." After thinking that over during the long summer break, Leonard took nearly every class that Bergeron taught and strove to meet his high standards. So did lots of students, not just those in Model U.N., he says.

"It was a joke on campus that we were 'majoring in Dean,'" Leonard says. "We took history courses even though we were

majoring in political science and political science courses even though we were majoring in history. We took courses we had no interest in, like The Kennedys in American Politics, just because he was teaching them."

Like Leonard, many of Bergeron's former students became teachers, including Jana Brown '91, '93 and Zachary Simmons '99, '00, who launched Model U.N. teams for their students at Whittier Vocational Technical High School and Haverhill High School, respectively, and then helped Bergeron and the International Relations Club launch its annual Model U.N. conference for high school students. Curtin, a former Plimoth Plantation food historian, is now a middle school U.S. history teacher.

Chancellor Emerita Jacquie Moloney '75, '92 says Bergeron was one of her most influential mentors. "Dean focused on 'publishing' his students as his primary scholarly focus," she says. "He was a great colleague, mentor and friend." Recently, Moloney and Adjunct Prof. Heather Makrez Allen '06, '08, '21 taught a higher education leadership course that Makrez Allen says "channeled Dean's classroom philosophies of engagement and conversation."

In the book that he gave Jason Carter '04, '06 as a graduation gift, Bergeron wrote a note predicting that Carter would become a teacher. Carter now runs UML's Model U.N. program and teaches the international relations class.

Bergeron began the partnership between the university and The Washington Center for Internships and Academic Seminars, which allows students to spend a semester in the nation's capital, studying policy and interning for a nonprofit or government agency. He also helped to establish the former master's degree program in Regional Economic and Social Development, now folded into Peace and Conflict Studies.

Outside of the university, Bergeron was among a group of Franciscans who opened a hospice in the late 1980s for people dying of AIDS; the Bethany Center later took in victims of sexual and domestic violence as well, including a teenage boy whom Bergeron adopted and sent through UMass Lowell. That boy, Matthew Drouin '95, was elected president of his graduating class and later founded a scholarship for students who were ineligible for ROTC scholarships because of their LGBTQ identity, Leonard says.

"Dean created this very personal educational environment for probably thousands of students over the years," Leonard says. So, towards the end of Bergeron's life, as he lay in the hospice ward at Massachusetts General Hospital, dozens of those former students came to see him, thank him and laugh with him one last time.

"That room was just a cocktail party of people who felt that connection to Dean," Leonard says.

Donations to the Dean Bergeron and Joyce Denning Endowment Fund support the Model U.N. program and provide project grants and scholarships to students majoring in history and political science. To make a gift to this fund, email Carolyn_Brooks@uml.edu.

LOSS

CLASS

YEAR NAME

1936	Pauline (Sullivan) Durgin
1943	Lucia Chertavian Yapp
1950	Donald J. Leitgeb
1950	Alphonse M. Tatarunis
1952	Maureen K. Conlon-Peirce
1953	Charles G. Darsch Jr.
1953	Angele (Yaghdjian) Keshian
1953	Alice F. McCarthy
1954	Melvin W. Ettenson
1954	Robert W. Waugh
1955	Edward H. Kane
1957	Elaine M. (Delehanty) O'Connor
1958	Janice M. (Molloy) Farrell
1959	Charles D. Fitzpatrick
1959	Irene C. (Klements) Keating
1959	Marie Panageotopoulos
1960	Peter E. Toohey Jr.
1962	Roberta S. (Murray) Boyd
1962	John E. Conway Jr.
1962	Peter L. Mitsakos
1963	Edward J. Bolia
1963	Richard J. Lydon
1963	Wilfred E. Moineau
1964	Robert M. Sjogren
1965	Jean H. (Higgins) Flannery
1965	Robert F. Hadley Jr.
1966	James M. Dorgan
1966	Katherine M. (Hayes) Hughes
1966	Neil A. Krikorian
1967	Edward F. Allard
1967	Anne R. (Wyckoff) Codman
1967	Norval D. Stapelfeld
1968	Elizabeth C. (Ansill) Bastian
1968	Peter L. Hildebrand
1969	Ann T. Ciriello
1969	Susan A. (Smith) Kirste
1970	David P. Brooks
1970	Roger L. Dastous
1971	Karen A. (Wolcott) McGary
1971	Arthur C. Pernokas
1971	Kathleen Whittaker
1972	David A. Damm
1972	Daniel A. Wenner
1973	Natalie J. (Catalani) Davulis
1974	Wayne P. Griffin
1974	Stephen M. Lemack
1974	Richard J. Morway
1975	Stanley R. Marson
1975	John P. Musto
1975	Lise M. (Achin) Pelletier
1976	Edward H. Russell
1977	Shelley A. Biagiotti
1977	Charlene (Flemings) Pires
1977	Joseph F. Stewart
1978	George R. Markarian
1979	Dorothy J. Foley
1979	John G. Hamer
1979	William L. Martin
1980	Miriam J. Jensen

CLASS

YEAR NAME

1982	Larry K. Thibeault
1984	Lawrence T. Gray Jr.
1985	Nathan L. Harriman
1985	Claire L. (Baglio) MacDonald
1985	Peter D. Varhol
1986	Rosemary L. Audette
1986	Eugene Vallee
1987	Charles A. Carroll
1987	Edwin P. Valis Jr.
1989	Cecilia Chi
1990	Wayne A. Cote
1991	Michael T. Schott
1992	Donald F. Bartlett
1992	Steven M. Stone
1993	John C. Crawford
1994	Paula E. Falewicz
1995	Karen Ann Dickinson
1996	Veronica T. (Durant) Doherty
1999	Martin R. Convery Jr.
2000	Linda C. Hattori
2000	Patrick E. Hoffman
2000	James D. Hopwood
2001	Pamela A. Barry
2001	Laura Corrdry
2002	Shaun R. Montminy
2002	Mary Patrice O'Connor
2003	Elizabeth R. Shaw
2006	Tan Duy Nguyen
2010	Sis S. Chhoeng
2011	Shannon Gregory Carbon
2011	Michal Malinowski
2014	David English
2017	Kevin B. Buchanan
2017	Daniel M. Lechleider
2020	David Michael Smart

NAME

Ahmed Abdelal
Dean J. Bergeron
William Burke
Ruth Chappas
Lorraine M. Ducharme
Joseph Fisher
Barbara A. Flaherty
Alana Greene
Diane Lewis
Margaret L. Martin
Arlene McCormack
Gerard W. O'Connor
Leo Panas
John P. Recco
Janet M. Sawyer
Paul St. Onge
Christine S. Stamas
Willis E. Traphagan
George Zaharoolis

PLASTICS GOLF OUTING

1. This Pi Lambda Phi foursome enjoyed a day on the links at the UML Plastics Engineering Alumni and Friends Golf Tournament at Connecticut National Golf Course.

From left: Don Roche '83, '86, Mark Cunningham '83, Fran Mazzone '81 and George Bourne '82, '85.



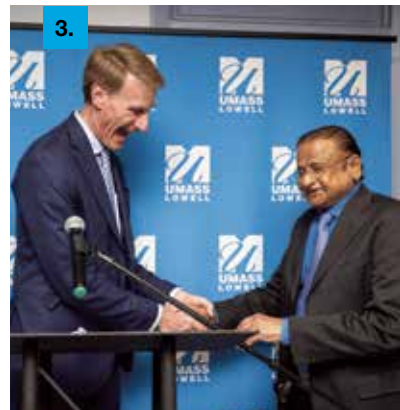
COMPOSITES LAB REUNION

2. Alumni and staff, past and present, of the UML Advanced Composites Materials and Textiles Research Laboratory and Baseball Research Center reunited for a tour of the Composites Lab. The reunion coincided with the American Society of Composites Annual Technical Conference, hosted by UMass Lowell.



BALL HALL RECOGNITION

3. Gyanendra Gupta '78 was honored for his generous estate gift to support renovations to the UML plastic engineering building and a scholarship he created for UML engineering students in honor of late Prof. Rudy Deanin.



UNIVERSITY ALUMNI AWARDS

4. In honor of their outstanding service to the campus and community, UMass Lowell recognized 12 distinguished graduates at the 2023 University Alumni Awards celebration.

From left: Chancellor Julie Chen, Patricia Sullivan Talty '78, Roma Aurora '18, '21, Darlene Kolodziej Steffen '76, Ralph Saint-Louis '18, '20, David Shulman '85, '87, Peter Barrett '74, Kemi Olugemo '97, Fang Zhang '15, '20, Mark Elgart '01, Gregory Sydney '81, Suzanne Lane Conrad '81, Scott McGaunn '06 and Executive Director of Alumni and Donor Relations Heather Makrez Allen '06, '08, '21.

CELEBRATION OF PHILANTHROPY

5. The Celebration of Philanthropy provides an opportunity for the university to thank and recognize our most loyal donors, and to induct new members to our lifetime giving societies.

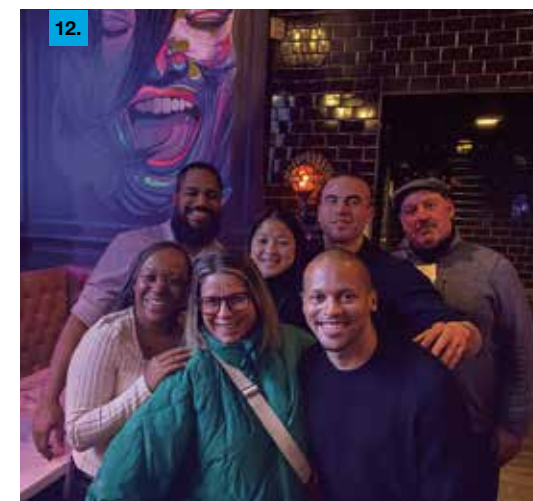
From left: Kennedy College of Sciences Dean Noureddine Melikechi poses with Circle of Honor inductees Greg '92 and Fadwah '91 Chiklis, along with John Kennedy '70, '16 (H) and Tina Wang.



SRT ANNIVERSARY EVENT

6. In honor of the 40th anniversary of the Sound Recording Technology program, alumni, students, current and retired faculty and staff who have been a part of this program's unique history gathered to celebrate.

From left: Mike Breault '96, Bill Carman '84, Megan Morneau '04, Ian Paradise '01, Ron Trapasso '99, Mark Whittaker '02, Georges Le Noc'h '99 and Steve Munley '98.



CELEBRATION OF INDUSTRY PARTNERSHIPS

7. The Celebration of Industry Partnership event recognizes our partner companies that engaged at the highest levels of the university in the areas of research and innovation, talent acquisition, workforce development, branding and visibility and philanthropy. RTX was recognized as a Premier Partner for its dedication to UMass Lowell.

From left: Chancellor Julie Chen, Mark Russell '83 of RTX and Associate Vice Chancellor for Industry Partnerships & Economic Development Arlene Paquette.

ARIZONA HOCKEY

8. Alumni, parents and friends gathered in Arizona to cheer on the River Hawks at the Desert Classic held at the Mullett Arena.

From left: Cindy Gillis '82, Kim and Bob '81 Findlen, Hal Gillis '81, Dave Janeczek '82, '85, Larry '81 and Cheryl Acquarulo.

HOMECOMING

9. UMass Lowell alumni brought their college nostalgia and hockey excitement to campus for the Homecoming "Alumni Takeover" of the Tsongas Center. The hockey game was sold out, with thousands of alumni and friends attending and more than 300 also attending pregame affinity reunions.

Sean Garballey '07, Eunice Zeigler '10, '12 and Chris Wilkinson '09, '11; Susan and Rich '98 Juknavorian; Look who found a photo of herself from the 1970s: Peg Shanahan '78, then and now!

MANNING HOCKEY NIGHT

10. Manning School of Business alumni and friends reunited on campus to meet the new Dean of the Manning School of Business Bertie Greer, and to cheer on our River Hawks hockey team.

Pictured: Dean Greer and Wayne Coll '85, '94.

UNITED IN BLUE HOCKEY

11. Supporters of the athletics program joined us for the annual United in Blue Appreciation Hockey Night.

From Left: Executive Director of Alumni and Donor Relations Heather Makrez Allen '06, '08, '21 and Mary '81 and Russ '81 Bedell.

RIVER HAWK HAPPY HOUR EVENT

12. It was a fun night out in the city with UMass Lowell head coaches, alumni, fans, and friends of UMass Lowell Athletics.

From left back row: Donte' Brown '11, Sam Otten '23, Doug Caves '10 and Bob Finley. Front row: Sharikka Finley-Moise, Shannon LeBlanc '98 and Erick Colon.

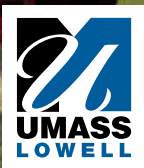


Shape Your Legacy with a Gift in Your Will.

The legacy you leave connects generations and shapes how you're remembered. One way to make a statement about what is important to you is to plan a gift to UMass Lowell in your will. This is an easy, personally satisfying way to set an example for others while providing important future support for our vibrant community.

For more information, call 978-934-4810 or email giftplanning@uml.edu.

Or visit uml.planningyourlegacy.org where you can download a FREE Personal Estate Planning Kit.



Events Calendar

For the latest information on locations and other details, go to alumni.uml.edu.

JUNE 2024

THURSDAY, JUNE 13 UMASS LOWELL WOMEN'S LEADERSHIP CONFERENCE

A conference featuring inspiring speakers and networking opportunities for women
www.uml.edu/wlc



THURSDAY, JUNE 20 RIVER HAWK OPEN

A golf tournament celebrating the successes of UML women's athletics programs
Four Oaks Country Club, Dracut, Mass.

JULY 2024



FRIDAY, JULY 19 HOCKEY ALUMNI GOLF TOURNAMENT

A golf tournament for hockey alumni & friends of the program
Four Oaks Country Club, Dracut, Mass.

AUGUST 2024

THURSDAY, AUG. 22, 5:30 P.M. CAPE COD ALUMNI RECEPTION

A gathering for alumni and friends who live or vacation on Cape Cod

SEPT. 2024

THURSDAY, SEPT. 26 LAWYERS, MOCK TRIAL AND PRE-LAW SOCIETY REUNION

A gathering for past and present Pre-Law Society members, Mock Trial Team and alumni in the legal field
6:30 p.m. at Coburn Hall

THURSDAY, SEPT. 26

CELEBRATION OF INDUSTRY PARTNERSHIPS

A celebration of innovative collaborations with industry partners
5:30 p.m. at Saab ETIC

FRIDAY, SEPT. 27

PLASTICS GOLF TOURNAMENT

A golf tournament for alumni and friends of the plastics engineering program
1 p.m. Shotgun start and lunch honoring Prof. Nick Schott
Connecticut National Golf Club, Putnam, Conn.

OCT. 2024



THURSDAY, OCT. 17

CELEBRATION OF PHILANTHROPY & UNIVERSITY ALUMNI AWARDS

A celebration honoring our generous donors and outstanding alumni

FRIDAY, OCT. 18, 11 a.m.

GOLDEN ALUMNI REUNION

A reunion for alumni who graduated over 50 years ago (1974 and prior)

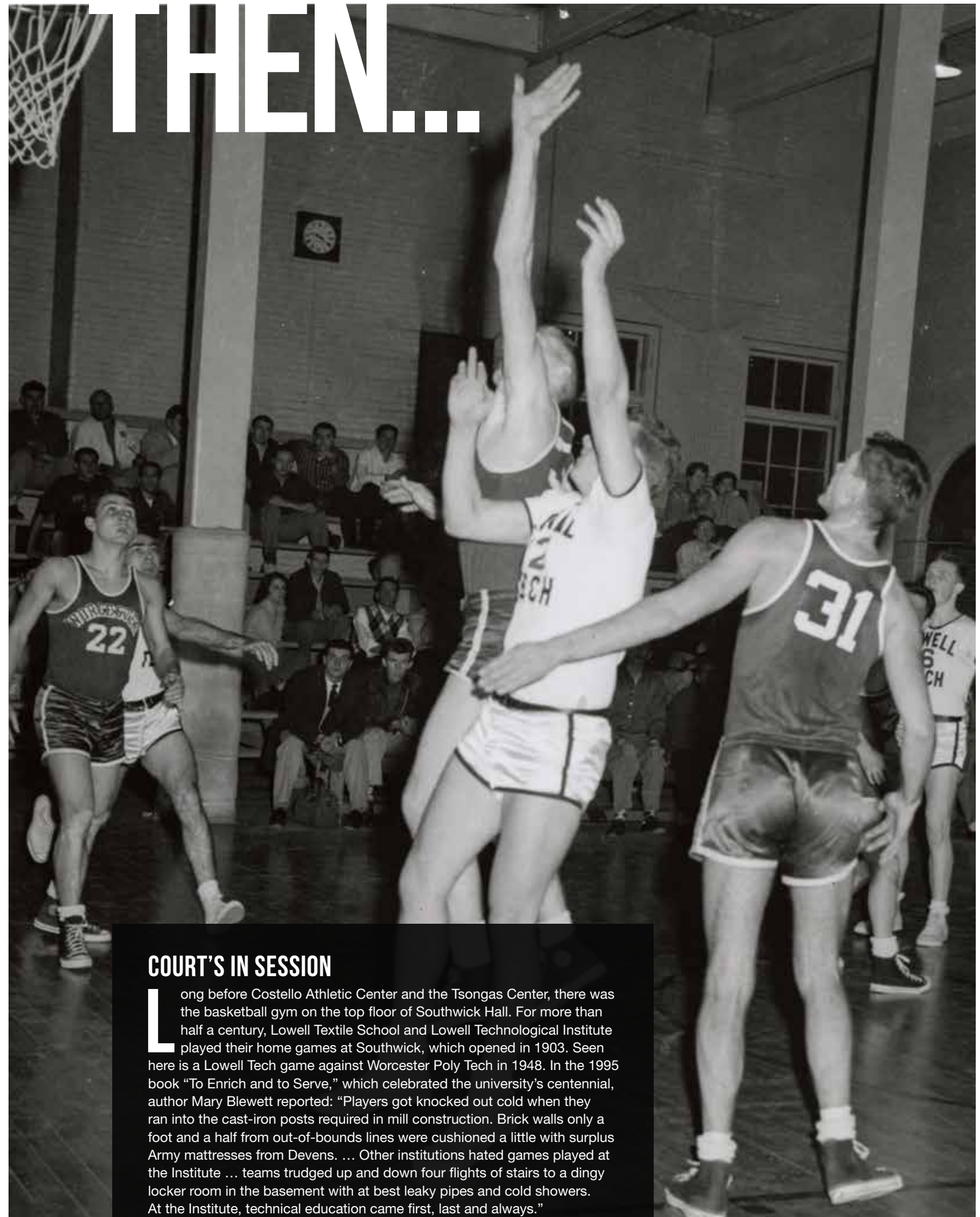


SATURDAY, OCT. 19

ALUMNI HOMECOMING 2024—ALUMNI TAKEOVER OF THE TSONGAS CENTER

An evening of River Hawk hockey, reunions and more for alumni and their families

www.uml.edu/homecoming

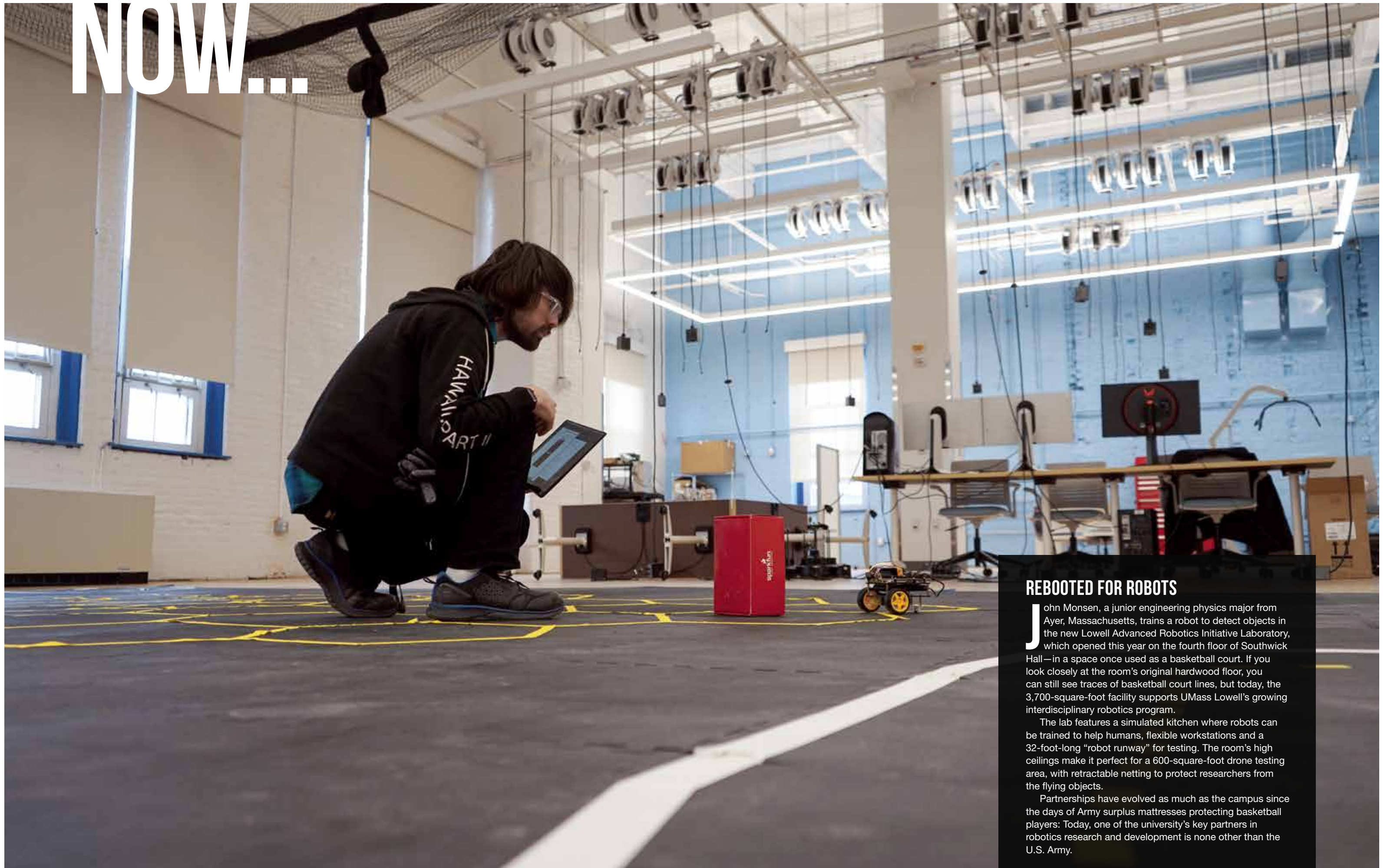


COURT'S IN SESSION

Long before Costello Athletic Center and the Tsongas Center, there was the basketball gym on the top floor of Southwick Hall. For more than half a century, Lowell Textile School and Lowell Technological Institute played their home games at Southwick, which opened in 1903. Seen here is a Lowell Tech game against Worcester Poly Tech in 1948. In the 1995 book "To Enrich and to Serve," which celebrated the university's centennial, author Mary Blewett reported: "Players got knocked out cold when they ran into the cast-iron posts required in mill construction. Brick walls only a foot and a half from out-of-bounds lines were cushioned a little with surplus Army mattresses from Devens. ... Other institutions hated games played at the Institute ... teams trudged up and down four flights of stairs to a dingy locker room in the basement with at best leaky pipes and cold showers. At the Institute, technical education came first, last and always."

Photo source: University Archives, Center for Lowell History

NOW...



REBOOTED FOR ROBOTS

John Monsen, a junior engineering physics major from Ayer, Massachusetts, trains a robot to detect objects in the new Lowell Advanced Robotics Initiative Laboratory, which opened this year on the fourth floor of Southwick Hall—in a space once used as a basketball court. If you look closely at the room’s original hardwood floor, you can still see traces of basketball court lines, but today, the 3,700-square-foot facility supports UMass Lowell’s growing interdisciplinary robotics program.

The lab features a simulated kitchen where robots can be trained to help humans, flexible workstations and a 32-foot-long “robot runway” for testing. The room’s high ceilings make it perfect for a 600-square-foot drone testing area, with retractable netting to protect researchers from the flying objects.

Partnerships have evolved as much as the campus since the days of Army surplus mattresses protecting basketball players: Today, one of the university’s key partners in robotics research and development is none other than the U.S. Army.



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CONGRATS TO OUR NEWEST ALUMNI!

More than 4,500 members of the Class of 2024 graduated in May, representing 41 states and 106 countries. Among the undergraduate class, nearly 800 were the first in their families to graduate from college. Hey, new grads: Don't lose touch! Follow us on social (where you can see a ton of photos from Commencement!), and update your contact info to get updates on UML news and events! Scan this QR code to get started.

