



Journey of a Boundless Creative

Brooks Atwood (ARCH '99)
rides the waves of change

**Hydrogen's Biggest Booster
Savoring Nostalgia
Sweeping Up Earth's Orbit**



A Letter from Raj Echambadi

Daring to lead.

To some the phrase might seem like a casual platitude. But as I come to know more and more members of our alumni community, I am continually reminded that leadership requires the courage to take chances and succeed. The stories you will read in this issue of *Illinois Tech Magazine* attest to that fact, and the recent accomplishments of our students, faculty, and staff over the past year only reinforce it.

Our research community continues to lead in fields of future importance and relevance. Just this May, Illinois Tech was named as the home of a \$10 million federally funded Tier 1 University Transportation Center that will make navigation systems more resilient to cyber attacks. The head of the United States Department of Commerce herself emphasized the need for facilities such as our planned National Institute for Advanced Manufacturing, an applied research and advanced

workforce training center that aims to bolster sorely needed semiconductor production. In other areas, we're researching groundbreaking, tech-driven treatments for diabetes, and our law school is conducting a deep dive into the philosophical underpinnings of police policy.

And in the wake of an increased national focus on college admissions, I would like to reiterate that Illinois Tech will continue its legacy of advancing technology and innovation for all. Our new Ascend program, which partners with City Colleges of Chicago to offer the city's high school students a cost-effective and flexible path to higher learning, is a perfect example of how we are continually building programs with that goal in mind.

These efforts have not gone unnoticed: Bloomberg Philanthropies recently recognized Illinois Tech as one of 28 American Talent Initiative Higher-Fliers—institutions with high

graduation rates that are also leaders in college access and in enabling success for lower-income students.

That outreach was recognized in the most recent *Wall Street Journal*/College Pulse college rankings, which placed more emphasis on career outcomes, ranking Illinois Tech the 23rd best college in the country, above any other college in Illinois. Additionally, this year *U.S. News & World Report* ranked us within the top 100 colleges in the country and 29th for best value—an affirmation of our commitment to provide economic opportunities for all.

Speaking of student success, one trend has distinguished the alumni highlighted in this issue of *Illinois Tech Magazine*: they were not content to simply excel in their careers. Rather, they displayed the courage, determination, and foresight to become true leaders in cutting-edge fields.

In his relentless pursuit of clean energy, Mike Graff (CHE '77) is now actively shaping the course of the hydrogen business worldwide, and Georges Benjamin (BIOL '73) has been one of the most influential executives in health care for nearly two decades. Gregory Wyler's (LAW '96) startup company is re-imagining orbital satellite system design. Yuta Katsuyama (M.Des.+M.B.A. '21) and Cristina Tarriba (M.Des. '20) managed to launch a novel food production business during the height of the COVID-19 pandemic. And Brooks Atwood (ARCH '99) risked his career many times over to become the energetic team innovator of a Netflix show that has reached the streaming service's top-10 list in 67 countries.

I find all of these alumni inspiring, and I'm thankful to them not only for selecting Illinois Tech as a launchpad for their careers, but also for sharing their stories with us in order to inspire others.

Thank you for your continued support, and for all of the stories to come.

Sincerely,

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Illinois Institute of Technology, also known as Illinois Tech, is
a private, technology-focused research university. Based in the
global metropolis of Chicago, Illinois Tech is the only university of
its kind in the city. It offers undergraduate and graduate degrees
in engineering, science, architecture, business, design, human
sciences, applied technology, and law.

One of 22 institutions that comprise the Association of Independent
Technological Universities (AITU), Illinois Tech provides an
exceptional education centered on active learning, and its graduates
lead the state and much of the nation in economic prosperity. At
Illinois Tech students are empowered to discover, create, and solve,
and thus uniquely prepared to succeed in professions that require
technological sophistication, an innovative mindset, and an
entrepreneurial spirit.

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To provide distinctive and relevant education in an environment
of scientific, technological, and professional knowledge creation
and innovation

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College of Architecture
College of Computing
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online at magazine.iit.edu



PHOTO: JAMIE CEASER

Narmeen Aamir, far left, stands with a group of Illinois Tech students who conducted a campus survey on hijab use.

CAMPUS LIFE

'We Feel Safe, Good, and Encouraged'

In honor of this year's World Hijab Day, Pakistan Student Association president Narmeen Aamir (M.A.S. CPE 2nd Year) and Muslim Student Association president Hummad Haque (M.S. BME '23) joined forces in early 2023 to launch a campaign aimed at capturing the thoughts and feelings of students who wear hijabs on campus.

With the collaborative efforts of both student organizations, Hijabis on Campus collected testimonials that not only highlighted the perspectives of Muslim women and their experiences with wearing a hijab on campus, but also the thoughts and perspectives of all students—regardless of gender and religion, or whether they wore a hijab or not.

Dozens of students attended the World Hijab Day event put on by both organizations, where

Aamir had the opportunity to talk to more than 50 students and collect 10 testimonials from attending students.

"The responses were really good," said Aamir. "The people who were wearing hijabs were like, 'We feel safe, good, and encouraged.' And that's one thing I love about Illinois Tech. They encourage you so much, even if you have different values."

Aamir added how many students who do not practice Islam shared their thoughts as well, describing a deep appreciation for the culture and customs attached to the religion.

"It's really nice to live in such a diversified environment where people respect your values and let you be who you are," Aamir says.

—Casey Halas

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Correction:

A story on page 18 of the spring 2023 issue of *Illinois Tech Magazine* incorrectly identified the relative being cared for by Kris Sorich (M.A.S. LAND '14) while she earned her degree. Sorich was caring for her father.

A look at some of the national rankings highlights:

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UNIVERSITY SUCCESS

Outcomes-Driven Education

Illinois Tech saw notable jumps in multiple national rankings of the best colleges in the United States this fall, and there's a clear reason why: the university's most important measure of success—our focus on ensuring positive outcomes for our students—is now a much larger part of the ranking entities' methodology.

COMMUNITY

Deepening Community Ties

Illinois Tech has sat in the heart of Chicago's Bronzeville neighborhood since the university was founded—and with the help of a \$2 million federal grant, a new initiative will soon deepen the university's relationship with its surrounding community, providing cutting-edge skills training for thousands.

Planning has started on what university officials are calling the Bronzeville Opportunity Engine, which will transform an entire floor of the university's Michael Paul Galvin Tower into a training and incubator space for local small business owners, students from middle school through adulthood, and working professionals who want to update their skills for a modern job market.

"The programming will reflect the needs of Bronzeville constituents, whether they're workers, learners, or entrepreneurs," says Alicia Bunton, Illinois Tech's assistant vice president of community affairs.

In December 2022 former United States Representative Bobby L. Rush (D-Ill.) announced that the 2022 federal

government spending bill included a \$2 million capital grant for the establishment of the Bronzeville Opportunity Engine, including "16,000 square feet of renovated space dedicated to community workforce development, small business and entrepreneurship education, startup incubation, and pre-collegiate programming."

The space will take up the currently vacant fifth floor of Galvin Tower. While the university has a memorandum of understanding with the City of Chicago to serve five ZIP codes on the city's South Side, Bunton says priority will likely be given to those in the immediate Bronzeville area.

"It's a way of creating permeability," Bunton says.

Illinois Tech President Raj Echambadi said in a message to the university community that "we are truly honored and fortunate to call Bronzeville home, and we must fully embrace all of the opportunities and responsibilities that come with being a major university in this historic Chicago neighborhood." —*Tad Vezner*

“Headliners



“THEY NAVIGATE TO THAT SPOT WHERE THE STORY AND THE BRAND CONFLUENCE IS JUST NOT JUST APPROPRIATE, BUT PERFECT.”

—Harold L. Stuart Endowed Chair in Business Siva Balasubramanian, in the *Sydney Morning Herald*, on how the *Barbie* movie reflects a complete consumer acceptance of product placement



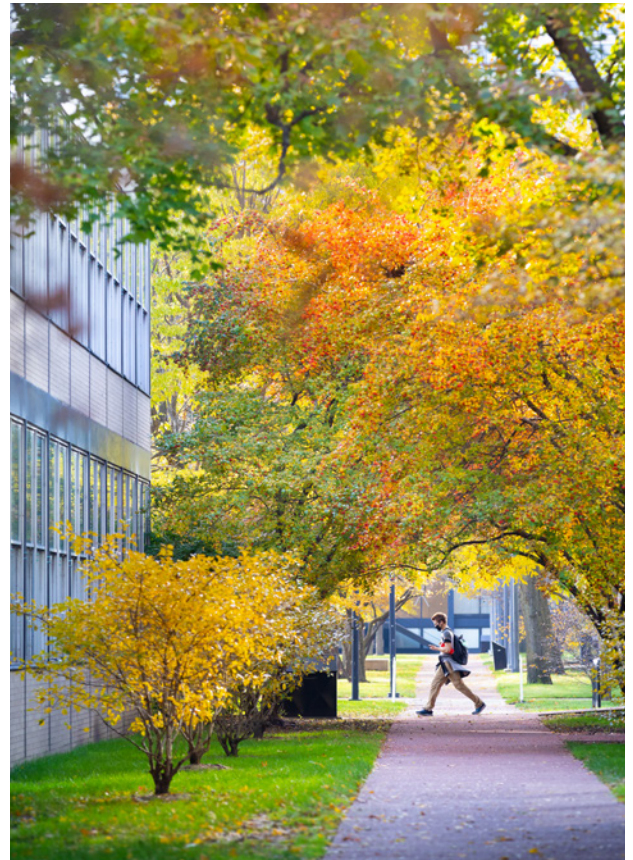
“Constitutional checks and balances dodged a bullet. And overall, democracy dodged a bullet.”

—Professor of Law Carolyn Shapiro commenting on the United States Supreme Court’s rejection of the controversial “independent state legislature theory” on National Public Radio



“Often people will consume media and then think about different ways to either dress up or act as or mimic affordances of that character. I don’t think this is unprecedented or unrelated to ways that people have been engaging with media, especially games.”

—Professor of Digital Humanities and Media Studies Carly Kocurek discussing a trend of TikTok influencers imitating hypothetical video game characters in the *New York Times*



CAMPUS

Mies Campus Named a Nationally Accredited Arboretum

The nearly 2,000 trees flourishing on Illinois Tech’s Mies Campus offer respite and natural beauty in the midst of Chicago, and a \$2 million gift from Alphawood Foundation Chicago will bring the university’s landscape to new heights.

College of Architecture students Jessie Flatley (M.L.A. ’22), Erik Schiller (M.ARCH, M.L.A. ’22), and Johann Friedl (M.L.A. 5th Year) began searching for a way to celebrate the campus’ canopy with the ArbNet Arboretum Accreditation Program. Their initial work, under the direction of Professor of Landscape Architecture and Urbanism Ron Henderson, has earned the university a national accreditation and a new name: the Alphawood Arboretum at Illinois Institute of Technology.

“Mies Campus has a landscape personality and character that we want to reinforce,” Henderson says. “This demonstrates the university’s commitment to environmental action, ethics, and integrity.”

Observant Illinois Tech visitors can spy 68 tree species among the university grounds. Alphawood Foundation Chicago’s grant of \$2 million will go toward boosting that number to 100.

Mies Campus is the second educational institution in Chicago to be accredited and the first arboretum on Chicago’s South Side. It joins only a handful of Chicago parks, including the Garfield Park Conservatory and Lincoln Park, to receive the designation. —*Thaddeus Mast*



PHOTO: NORMAN COHEN

MEN'S BASKETBALL

Playing for the Home Team

When Milos Dugalic (EE '23) was growing up, his parents would send him to Serbia over the summer to stay with his grandparents. He learned the language, the culture of his heritage. So much so that, even though he grew up in Illinois, he reflexively calls the country “home.”

Now, he'll have a chance to live and play there as a professional basketball player after signing with the country's largest professional league, Košarkaška liga Srbije (KLS), in summer 2023.

“The option to play here at home, that's kind of a no-brainer,” Dugalic said in August, after living in his permanent quarters in Leskovac, Serbia, for all of two days. “My parents are super excited. Their parents, my aunts and uncles, I know them...everyone's in my corner.”

Dugalic was born and raised in Des Plaines, Illinois, to parents who emigrated from Serbia in the mid-1990s during the Yugoslav Wars. Many extended family members, including his grandparents, stayed behind.

Athletic even at a young age, Dugalic started out playing soccer, then later basketball at the age of seven. In high school, he mixed in volleyball for fun—and to be part of another team.

“Creating strong bonds, that's the biggest thing for me. Relationships are very important,” Dugalic says.

During his final year playing men's basketball at Illinois Tech, he was the Scarlet Hawks' top player, earning a chance to play in a NCAA Division III All-Star Game. Dugalic finished his athletic career at Illinois Tech sixth all-time in points scored with 1,121, second all-time in steals with 133; and fourth all-time

in rebounds (699), blocks (78), and assists (192). He was also first-team all-conference in the Northern Athletics Collegiate Conference following his third and fourth seasons.

By the time he graduated in May, Dugalic had already signed with an agency, Atlanta-based EZ Sports Group, who had distributed his highlight film to a partner agency in Europe. Soon enough, he heard from a team in the biggest league in Serbia, the KLS.

“The anxiety leading up to signing was kind of killing me. But finally figuring it out, knowing I'll be at home here with family nearby feels great,” Dugalic said of signing with Zdravlje Leskovac during an interview in an August episode of the *Scarlet Hawk Talk* podcast.

“We are so proud of Milos and are excited about the opportunity he has been given to pursue his dream of playing professional basketball. He has worked tirelessly to put himself in the position to have this chance. The joy I feel for him and his family is indescribable,” Illinois Tech head men's basketball coach Terrence “TJ” Gray says. “I have no doubt he will make a great professional as he embarks on his new journey.”

KLS's regular season started in October and is 30 games long, with the playoffs starting in April.

Conscious of the limited time professional athletes have in their careers, Dugalic hopes to one day take the next rung up on the league ladder and play for the Adriatic Basketball Association, which includes teams from surrounding countries.

For now, though, “I'm not going to take anything for granted, I'm going to stay safe, stay healthy, work hard. Because one day, the ball's going to stop bouncing,” Dugalic says. “I want to cherish every moment I have here, the good, the bad, the ugly.” —*Tad Vezner*



PHOTO: ELENA ZHUKOVA

ENGINEERING

Closing the Carbon Cycle With Green Propane

Illinois Tech Assistant Professor of Chemical Engineering Mohammad Asadi has published a paper in *Nature Energy* that describes an electrolyzer device that can convert carbon dioxide into propane through a method that is economically feasible at a large scale.

The United States has set a target of net-zero greenhouse gas emissions by 2050. Electric power and industry sectors account for around half of U.S. carbon dioxide emissions, so advances to reduce these emissions are an urgent goal.

“It’s the best way to close the carbon cycle without losing the chemicals we currently use daily,” says Asadi.

The key to Asadi’s electrolyzer is a one-of-a-kind catalytic system that uses inexpensive, readily available materials to produce tri-carbon molecules, a core component of many fuels such as propane, which is used in a range of applications, including home heating and aviation fuel.

Asadi says one of the reasons this technology is more commercially viable than other works is that the group used a flow electrolyzer, which allows for the continuous production of propane, compared to other technologies that require batch processing.

Having proven the technology’s success, Asadi has partnered with SHV Energy, a leading global propane distributor, to scale up the system and make it more widely available.

Illinois Tech Duchossois Leadership Professor and Professor of Physics Carlo Segre, University of Pennsylvania Professor of Materials Science and Engineering Andrew Rappe, and University of Illinois Chicago Professor Reza Shahbazian-Yassar contributed to this work. Mohammadreza Esmaeilirad (Ph.D. CHE ’22) was a lead author on the paper.

—Simon Morrow

ENGINEERING

Robotics Team Reaches Finals in \$10 Million Rainforest Competition

Matthew Spenko, professor of mechanical and aerospace engineering at Illinois Tech is leading his team, Welcome to the Jungle, into the finals of the prestigious XPRIZE Rainforest competition—a global five-year, \$10 million contest designed to enhance our understanding of tropical rainforest ecosystems around the world.

Welcome to the Jungle—composed of members from Illinois Tech, Purdue University, Natural State, and the Morton Arboretum—is one of six teams advancing to the finals, which will be held in 2024. “The semifinal field trials in Singapore showed us how difficult this challenge is, and we’re ready to implement everything we learned there into our approach for the finals,” says Spenko, whose team was one of 13 semifinalists.

The team’s approach involves delivering and retrieving sensor packages to the rainforest and also 3D mapping the rainforest seamlessly using drones. These sensors are designed to identify species, particularly birds, from audio and visual data. Spenko’s partners at Purdue University, led by Assistant Professor of Civil Engineering Jinha Jung, took the lead on aerial surveying to measure vegetation, to quantify tree species’ diversity, and to determine potential sensor deployment locations. Under the guidance of Spenko, the project has been a tremendous opportunity for experiential learning with about 60 undergraduate students contributing to the project, including six who went to Singapore.

The winning team will survey the most biodiversity contained in 100 hectares of tropical rainforest in 24 hours and produce the most impactful real-time insights within 48 hours. —Kevin Dollear





THE AUTHENTIC SELF

BY TAD VEZNER

PHOTO BY NICOLE CALDWELL



Brooks Atwood (ARCH '99) sits on the beach near his home in Southern California.
PHOTO: NICOLE CALDWELL

“

“I’M JUST IN THIS PERPETUAL STATE OF TRANSITION,” says Brooks Atwood (ARCH '99).

He’s not kidding. Even before Atwood became a star of Netflix’s *Hack My Home*, which recently hit the streaming platform’s top-10 most-watched list in 67 countries, he sketched in the streets of Paris to eat, headed impressive architecture projects in California, co-founded two design firms, taught at a tech institute, and was a finalist on a reality TV show.

To those who would paint him as wayward and chaotic, Atwood stresses that creativity is found in many places—and found most easily when you’re not looking for it.

“You have to give creativity space, silence. You have to let it percolate. There’s no instant tea,” Atwood says, before chuckling. “I’ve found that with my freeness, my openness...something about me pushes people’s buttons.”

Born in Kalamazoo, Michigan, Atwood moved around as a child, before tentatively settling in Naperville, Illinois.

Both his parents were gregarious and could command a room. But they divorced when he was four, and his mom got a job as a dairy saleswoman, an acquaintance of countless chefs and restaurateurs. Atwood began to take after her.

When he entered high school, Atwood felt he “tuned into my authentic self. And I’ve been chasing that all my life. I knew I was different, artistic and free, and I just didn’t know what to do with those things.”

On trips to visit his father in Virginia, the two would go sailing on the ocean, “following the wind and your own thoughts....Those moments to me are just so precious.” Atwood began to tackle the existential, with questions such as: “What is self? What is identity? And who’s doing the looking?”

He didn’t get it right the first time.

“I thought rebellion was cool, and I thought that’s what I was supposed to be doing,” he says.

As soon as he turned 18, Atwood moved out. He lived in downtown Chicago and later attended Purdue University in Indiana for a year, before one of his professors told him he should go to architecture school. His math ability mixed with his break-the-glass mentality would fit nicely in the field. He enrolled at Illinois Tech.

By his third year, though, Atwood chafed at the coursework. “I overthought everything,” he says. So he did the only thing that seemed reasonable: He sold all his possessions and hopped on a plane to Paris.



PHOTO: NETFLIX

Brooks Atwood (ARCH '99) works with the other co-hosts of *Hack My Home*.



PHOTO: NETFLIX

Brooks Atwood (ARCH '99) is a co-host on the Netflix show *Hack My Home*.

Atwood wandered for a time; he hitchhiked across Europe and landed again in Paris, where he sketched as a street artist for money.

"I've failed at many things in my life, and all had something in common: fear," Atwood says.

Did he succeed in Paris? Was he afraid? Atwood's next two questions would be, "what is fear?", "what is success?"

"I was hungry and tired and alone and scared and confused," Atwood says. "But I learned a French word: *flaneur*. It means to just basically wander around and discover things you wouldn't have discovered if you were actually looking for them."

"YOU HAVE TO GIVE CREATIVITY SPACE, SILENCE. YOU HAVE TO LET IT PERCOLATE. THERE'S NO INSTANT TEA." —Brooks Atwood

He secured a long-term French visa, learned the language, and immersed himself in the lifestyle. He began selling and exchanging art, not just sketches, and supplemented his income by hosting dinner parties.

But over time, he felt the need for more. "I'm avoiding something," he says he thought. "I don't know what it is, but I need to go back."

Atwood returned to Illinois Tech, finished up his architecture degree, and took a job at Florian Architects in Chicago before moving to New York. There, he received a master's degree in architecture from Columbia University, and started an architecture and design firm with two friends called POD Design + Media.

"Atwood is really in his heart a designer. It's the way he looks at the world: very inquisitive, very, 'what if?'" says Clay Odom, one of his partners.

Atwood also took a job as an adjunct professor at New Jersey Institute of Technology, teaching architecture and design, and again urging rebellion against mind-killing rigidity.

"I was the crazy professor. My students hated me and would cry at the beginning, and at the end were all bonded as a team," he says.

But professional ruts didn't have to be that deep for Atwood to feel like he was in one. He went searching for more.

Atwood responded to a casting call for an interior design reality show on HGTV called *Design Star*. He was cast as a contestant, made it to the finale, and finished as a runner-up.

He got an agent, then secured a role as a judge on *Shop Class*, a children's building competition show on Disney+.

In the meantime, Atwood closed his office in New York, packed his bags, and moved to Los Angeles, where he worked as a design director for the architectural firm OFFICEUNTITLED. He designed several large hospitality projects, including the well-received Cayton's Children Museum in Los Angeles and the award-winning Woodlark Hotel in Portland.

"All my projects don't have style. I hate that word. Style has a formula," Atwood says. "I like 'mood' or 'vibe.'"

But being in charge of hospitality projects didn't bode well for Atwood when the COVID-19 pandemic kicked in. He was laid off and started a new firm called Berries Design with his wife, a serial entrepreneur.

That's when his big break in entertainment happened: Atwood was chosen as one of four co-hosts of *Hack My Home*, where he is in charge of "innovation," navigating brainstorming and cheerleading collaborative efforts to come up with uniquely utilitarian ideas.

"Brooks is exactly the same on TV and in person. He's always energetic and excited, whether we're eating or talking about architecture," Odom says. "This isn't an act."

When asked now about his new-found fame, or the fact that trips to his local grocery store now include two hours of chit-chat, he says, "I'm not trying to be on TV to be rich and famous. I'm not giving it too much weight or power." He adds, "If I think about the outreach, it's a little scary to me."

In the meantime, Atwood's tendency toward transition is in overdrive: His firm has designed multiple hotels, and is currently designing The Dalton in San Diego. He's working on a children's book about moss and lichen, and another called *What is a BEWK?*—questioning how one defines a book. He's working on a podcast with a hotel developer called *Hotel Crush*, where the two chat with celebrity guests about their crushes on well-known hotels.

And at his local city council meetings, "every month I propose a new design initiative. All works in process," he says.

There's never an end. "What's an end?" Atwood would ask. But recently, at least, "there's a big mindshift I just went through," he says, referencing the iconic life-coaching principle, "Do, Be, Have."

"I was so caught up in the doing. I was doing, then being, then having. I switched the 'be' and the 'do.' Just be my authentic self, and from there, things will happen." ●

More online: pod-design.com



Hydr^ogen Proselytizer

By Tad Vezner

Mike Graff (CHE '77) didn't simply find himself in the hydrogen business—a business he's now focused on to such a degree that he's actively shaping its course. Rather, his journey into the world of an element he firmly believes will be instrumental in global decarbonization, energy production, and other Earth-saving priorities was not a matter of chance, he says, but a result of his early recognition of hydrogen's true potential.

"From where I started, for totally different reasons, I developed clear knowledge of hydrogen. Now somehow it's in vogue," says Graff, who has made the infrastructure of hydrogen production immeasurably more prominent as the chairman and CEO of American Air Liquide Inc. "While hydrogen alone will not drive a clean energy transition, a clean energy transition will not happen without it."

Those who know Graff argue that his position as a prolific hydrogen proponent—one who has testified before the United States Senate about its role in depolluting the transportation sector—was hardly happenstance. Work ethic had more than a little to do with it.

"That guy has spent more time on airplanes and in hotel rooms than any human being I've ever met in my life," says Pat Moore, who sits on Air Liquide's North American review board, to which Graff reports. "You just don't run across many people like him who have those kinds of standards day-in and day-out."

After growing up on Chicago's South Side and laboring through summers on his grandparents' farm and working his way through school, Graff was the first in his family to go to college. He earned a master's degree in chemical engineering from Purdue University just 15 months after receiving his bachelor's from Illinois Tech in the same field.

Graff says his decision to pursue chemical engineering was driven by his fascination with its multidisciplinary nature. "It was a combination of all sciences, as well as mathematics and how things worked....I always was interested in how things work."

He packed his summers with internships that would encourage the application of those interests, including a stint at Standard Oil of Indiana's plastic products division in Naperville, Illinois.

Upon graduation, he took a job

at Standard Oil, which changed its name to Amoco, then later merged with BP to become BP Amoco.

Graff stuck with the company through those changes, starting out as part of the engineering team that worked in refining, before taking promotions to head offices in global operations, business development, and finance. He traveled often, from its offices in Switzerland to Hong Kong to Tokyo, to visiting customers throughout Europe, Asia, and the Americas—ultimately streamlining the company's global businesses until he left BP Amoco in 2004.

"Early in my career I was very fortunate because it was a time in the industry where there was an enormous amount of opportunity," says Graff. The oil crisis had prioritized efforts to upgrade heavy high-sulfur crudes—essentially taking poor-quality oil and turning it into high-quality, environmentally friendly transportation fuels.

And that process—a high-pressure, high-temperature catalytic reaction in its relative infancy—took

industry—chemicals in refining, or steel, for example—you need very large quantities of hydrogen." And by 2050, Graff believes, hydrogen will provide a full fifth of the world's energy needs.

Over time, Graff's responsibilities grew even more. By 2010, he oversaw all of Air Liquide's operations in the western hemisphere. In 2012 he was given oversight of its worldwide electronic business and then Asia as well. He is currently the executive vice president of Air Liquide Group.

Delve beyond those titles and you hit an impressive bottom line, according to Moore.

"The revenues under his control represent two-thirds of the revenues of the entire corporation. ...His success has been pretty incredible when you look at the growth of the businesses he's been responsible for," says Moore, who is CEO of PJM Advisors.

Graff ticks off the past or current projects he's been involved in: building the world's largest industrial-scale proton-exchange membrane electrolyzer

"Early in my career I was very fortunate because it was a time in the industry where there was an enormous amount of opportunity." —Mike Graff

plenty of hydrogen. Early on, the element earned Graff's respect.

"It's an application of all the scientific principles I learned over time," Graff says.

Armed with the knowledge and experience from BP Amoco, and after a few years of consulting, Graff took a job that he still sees as his calling: He became CEO of Air Liquide's United States operations in 2007, then moved on to become president and CEO of American Air Liquide Holdings, Inc. two years later.

The company supplies industrial gases—not just hydrogen, but also helium, oxygen, and others, which are required in almost every industrial process, including the production of foods, pharmaceuticals, semiconductors, and are critical to health care, especially medical oxygen.

Still, Graff sees hydrogen, specifically, as "ever more important."

"The evolution has been such that hydrogen today is seen as one of the key energy vectors of the future that will help us decarbonize the transportation sector," he says. "If you are looking to decarbonize an energy intensive

on the northern side of Niagara Falls to help decarbonize the transportation sector; building the company's largest liquid hydrogen production facility in Nevada, now able to supply fuel cells for 40,000 zero-emission vehicles for several major automotive companies; and building the world's largest hydrogen storage facility in a south Texas cavern, just 100 yards from the state's first oil well. He's also a life trustee at Illinois Tech.

Zooming out to glance at the big picture, Graff adds, "I think it's critically important to help provide for the needs of not just the world around us, but our [immediate] communities, to help drive a better future for all of us. Our dedicated employees, who form the backbone and heart of the company, play a pivotal role in driving a better future for all of us. There's something very rewarding about that."

"This ability to take innovation and technology and leverage it into the world around us, doing the right things in the communities you operate, reinforcing what you give back, I think it's a very positive place to be." ●



Selling Nostalgia

By Casey Halas

PHOTOS BY SCOTT BENBROOK

During his first year at Illinois Tech, Yuta Katsuyama (M.Des.+M.B.A. '21) was shocked to find that the food mecca of Chicago was missing the triangular-shaped Japanese food staple that he'd enjoyed his whole life. Onigiri—handheld balls of soft, sticky rice stuffed with warm savory fillings, all wrapped in crunchy nori seaweed—was nowhere to be found.

Katsuyama's deep nostalgia for the once-familiar tastes of onigiri from his home in Tokyo developed into an idea for an onigiri delivery business, operating primarily out of Katsuyama's Chevy Volt. With help from his friend Cristina Tarriba (M.Des. '20), onigiri made its first impression on Chicago with their startup, Onigiri Kororin, during the height of the COVID-19 pandemic.

Tarriba—who at the time was experimenting with the idea of a potential salsa business—collaborated with Katsuyama based off of a trade. If Katsuyama helped with the paperwork

for the salsa business, Tarriba would help him make and distribute his new product.

With the one-man-band now an unstoppable team of two, Katsuyama and Tarriba were able to solidify onigiri flavors, cook them all to order, and deliver the product to customers all across the city.

After one week of taking customers' orders and having them pick up their onigiri in designated parking lots, word spread. They were soon featured in an article published by the *Chicago Reader*, prompting a huge uptick in sales.

Before enrolling in the Institute of Design at Illinois Tech, Katsuyama had been a management consultant working in the food industry in Japan. But he grew tired of giving advice to others.

"I wanted to make something by myself," he says. His original plan was to distance himself from the food industry, but every time he worked on a design project, it was always food-related.

When Katsuyama began experimenting with onigiri and building a prototype of the business model in summer 2020, Tarriba was in the midst of post-graduation job hunting. She soon accepted an offer to work as a service designer at a financial company, and planned to start her new position after the onigiri business's launch.

But after Onigiri Kororin's successful rollout, and the subsequent barrage of media attention, Katsuyama worked on convincing Tarriba to stay. She did.

"It feels more natural for me to be in an entrepreneurial role than in a corporate job," says Tarriba, "and Yuta saw that before I saw it."

Once the fall and winter months began to creep in, Katsuyama and Tarriba experienced a lull—or, "the trough of sorrow," as they refer to it, based on Paul Graham's graph, "The Startup Curve." They knew it was time to adapt to a changing environment.

"We tried a lot of different things. And I think that capacity to pivot and keep going and figure out how to adjust the business model in order to have an actual business is part of the skill set we acquired when we were at school," says Tarriba.

After a lot of prototyping and experimenting, the two entrepreneurs transformed Onigiri Kororin from primarily a shuttle service to a wholesale distributor for stores and markets all around Chicago.

"We feel like we finally found the product that has the most sustainable potential," says Katsuyama.

Nearly three years after their initial launch, the two have expanded their



Onigiri Kororin operates out of The Hatchery, a food and beverage incubator in Chicago's East Garfield Park neighborhood.

**“
We feel like we
finally found the
product that has
the most sustain-
able potential.”**

— Yuta Katsuyama

business, their operation, and their team—now totaling 10 employees—to new heights. After securing their private kitchen space in The Hatchery, a local nonprofit food and beverage incubator, they were able to hire interns (mostly former customers) and a custom, state-of-the-art onigiri machine that helped the team produce about 1,700 onigiri per hour.

Currently, Onigiri Kororin distributes to 36 stores across the Chicago area, in addition to serving at various outdoor events and music festivals, where Katsuyama has witnessed many customers come back for seconds.

"It's rewarding to see someone get excited about our product, especially when it's a customer who is either experiencing it for the first time, or has missed it for a long time," says Katsuyama. "Our product can be nostalgic for some people."

Looking back on the challenges that came with their surprising growth, Tarriba says, "We didn't have a lot of the technical skills required for the food business, but I think what we were always able to do was just keep moving forward and figure it out along the way."

"It's been fun, but of course, we've struggled a lot," adds Katsuyama. "But I've enjoyed struggling and figuring out how to make it happen." ●



Onigiri Kororin's packaged grilled yuzu salmon onigiri

More online: onigirikororin.com

A National Practitioner

By Tom Linder

Growing up on Chicago's South Side, Georges Benjamin (BIOL '73) dreamed of a career in science. "I wanted to be a scientist, whatever that was," says Benjamin. "I lived in the Museum of Science and Industry as my second home."

A self-described precocious kid, Benjamin started his career in medicine cleaning glass in labs and is now one of the most widely respected executives in health care. He has been the chief of emergency medicine at the United States Army's premier medical center, served as a city commissioner and a state secretary of health, and is now the head of a widely respected health advocacy nonprofit.

Still, it wasn't until a friend suggested that he consider medical school so he could get a better background in science that he even considered a career in medicine.

"I went to medical school to get a basic science background and absolutely fell in love with clinical medicine," Benjamin says.

While his interest in medicine was new, Benjamin's devotion to public service was quite familiar: he had spent four years in ROTC in high school and two years at Illinois Tech.

It was also through the military that Benjamin began his career in medicine, serving as a resident in internal medicine at Brooke Army Medical Center in San Antonio. The role included a fair amount of training in emergency medicine, which ultimately led him to being stationed at Walter Reed Army Medical Center in Washington, D.C., in 1983.

Benjamin's experience at Walter Reed has, time and again, led him back to public service after leaving the army, including serving as the commissioner of health and as interim emergency medical services director for Washington, D.C., before he was appointed as deputy secretary for health—and later secretary for health—for the state of Maryland.

"They were the most interesting jobs I've had," Benjamin says. "It was really challenging work. We saw a full range of new diseases that we had to address. For an ER doc, every day was a new adventure."

Setting public policy for Maryland led to a natural transition into a position that he holds to this day: executive director of the American Public Health Association, which he took on in 2002.

Leading a national public-health advocacy nonprofit has come with its fair share of challenges, the biggest of which came in 2020 with the arrival of the COVID-19 pandemic.

"Every year, we put about five or six priorities in place," says Benjamin. "Those are pretty much the same: pushing funding for public health, reducing gun violence, addressing

climate change, women's reproductive health rights. But we always leave one little spot for the unknown issue of the year. Of course, in 2020, that turned out to be COVID."

From the start of the COVID-19 pandemic, Benjamin led the organization as it advised the White House, the U.S. Congress, and public officials.

"We spent a fair amount of time working with other organizations and directly with communities encouraging people to get tested, get vaccinated," says Benjamin. "We were strong supporters of the administration's efforts to have Operation Warp Speed move mRNA technology along."

"I went to medical school to get a basic science background and absolutely fell in love with clinical medicine." —Georges Benjamin

Benjamin also points to the organization's help in passing the Affordable Care Act in 2010 as a groundbreaking accomplishment.

"When the ACA was going through Congress, we banged on the doors of members of Congress. We were strong advocates not just for getting the bill passed, but we were big advocates for helping to expand it in other states—as well as maintaining it," says Benjamin.

Moving forward, Benjamin and the American Public Health Association are still pushing for reform in the health



PHOTO BY EDGAR ARTIGA

care system to address shortcomings that were exposed during the COVID-19 pandemic.

He envisions a system that's better prepared to rapidly identify new threats and to respond accordingly with a consensus from the medical community. Technological barriers within the medical industry are a crucial aspect that he believes need to be addressed.

"During COVID, we were writing information down with a pen and ink and sending it around by fax machine," says Benjamin. "You could order a pizza remotely and get it delivered by Uber, but you couldn't move an EKG across the street."

Above all, Benjamin emphasizes that public health will always be a team sport. A central theme in his work is involving the public in decision-making, both in creating infrastructure and shaping policy.

It's clear that Benjamin made an impact.

He is a fellow of the National Academy of Public Administration and a fellow emeritus of the American College of Emergency Physicians. For 10 straight years, beginning in 2007, Benjamin was named as one of the 100 most influential people in health care, and he has been named one of the top 25 minority executives in health care three times by *Modern Healthcare Magazine*.

"As I look back, I've got a lot of young people that I have mentored that are now in leadership positions elsewhere," says Benjamin. "And I run into them all the time. I'll go in to meet someone, and suddenly they're the head of this office at

the federal government."

"Georges never fails to provide wise counsel," says Monica Feit, who is one of Benjamin's mentees.

Feit first worked with Benjamin in 2009 as the APHA government fellow, where she worked on the Senate Committee on Health, Education, Labor, and Pensions while it crafted the ACA. She is now the executive director of the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine.

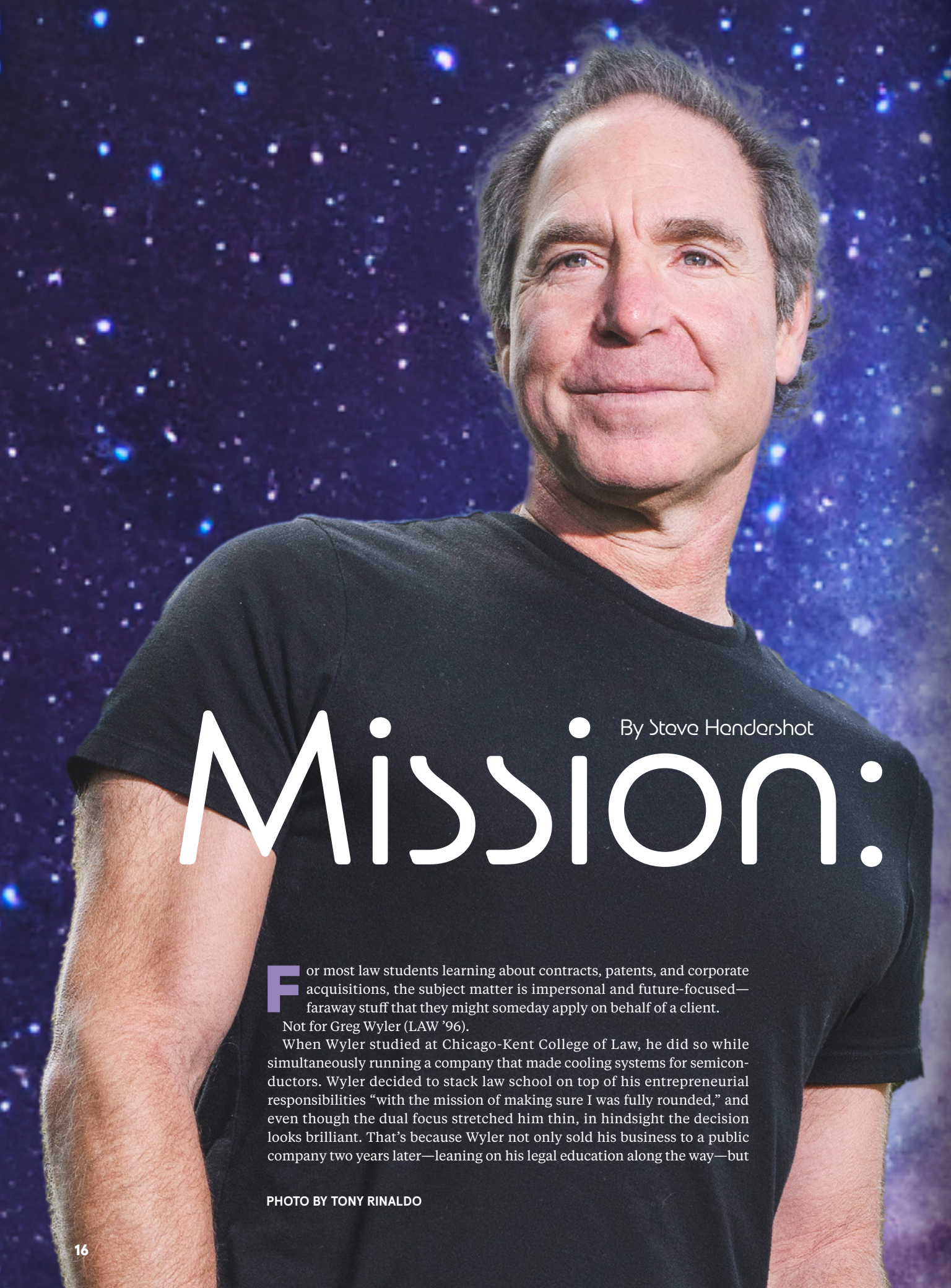
"He is politically savvy and unflappable in challenging situations. He is a giant in the field of public health policy," she says, adding that Benjamin is "a straight shooter, a thoughtful mentor, and because he's had such a rich professional history, a terrific storyteller."

As for the future, Benjamin is content in his role at the American Public Health Association, where he'll begin his 22nd year in December.

That doesn't mean he isn't ready for another challenge, should it present itself.

"I'm not anywhere ready to retire," Benjamin says. "I would love to be CEO of the American Red Cross. As an ER doctor, running the nation's most important disaster response agency would really be kind of neat. Or secretary of health and human services. Obviously, I would love to be the nation's chief health strategist through the governmental lens.

"Who knows what else will be in my future?" ●



Mission:

By Steve Hendershot

For most law students learning about contracts, patents, and corporate acquisitions, the subject matter is impersonal and future-focused—faraway stuff that they might someday apply on behalf of a client.

Not for Greg Wyler (LAW '96).

When Wyler studied at Chicago-Kent College of Law, he did so while simultaneously running a company that made cooling systems for semiconductors. Wyler decided to stack law school on top of his entrepreneurial responsibilities “with the mission of making sure I was fully rounded,” and even though the dual focus stretched him thin, in hindsight the decision looks brilliant. That’s because Wyler not only sold his business to a public company two years later—leaning on his legal education along the way—but

PHOTO BY TONY RINALDO

also because he has since founded and run several other companies focused on space, technology, and telecommunications, including his current venture, E-Space, which is preparing to launch one of the largest low-Earth satellite (LEO) constellations in the world.

The 1998 sale of Silent Systems—the company Wyler ran during law school—to Lisle, Illinois-based Molex, Inc. not only validated his course of study, but also allowed him to call his own shots in terms of career direction. He had enough money to retire then and there, and the idea had some appeal. But he decided he wanted to keep working, to keep building.

“I thought about mission and purpose and decided that I wanted to do things for the rest of my life that had a larger mission than just business,” Wyler says. “I do find an emotional drive from having an opportunity to help people improve their lives. I wanted to put the bulk of my energy on things that have a high positive impact.”

What he lacked, though, was a specific entrepreneurial idea that would fit the bill. He kept casting around for possibilities until someone he met at a friend’s wedding encouraged him to visit Rwanda. The African country was recovering from the devastation of genocide and civil war, and struggling to rebuild the infrastructure that would enable it to move forward.

“It was a place that wanted help and had a vision of building a better tomorrow,” Wyler says. “Generally, that might be a corny statement. But if you’re coming out of a genocide, it’s a great statement.”

Wyler began working to expand internet access in Rwanda, building a venture that installed more than 400 kilometers [nearly 250 miles] of fiber optic cable and launched the first 3G network in Africa.

“It just really was an extremely interesting and wonderful life experience,” Wyler says.

In 2018 he was inducted into the French Legion of Honour for entrepreneurship in satellite networking to close the digital divide; and in 2019 he was inducted into the Space & Satellite Hall of Fame. He holds more than 35 patents related to satellite communications technology.

Now at E-Space, which launched in 2022 and has raised more than \$90 million in investment capital, Wyler is adding a new dimension to his social-impact requirement: He’s aiming to clean up space.

The costs of building and launching spacecraft have fallen substantially in recent years, making E-Space’s plans for an enormous constellation of LEO satellites attractive to investors. But there’s a downside: Space is quickly getting crowded, and when two space objects collide—well, watch out.

“When you have a collision, the pieces don’t just lie by the side of the road,” Wyler explains. “They become projectiles traveling at 7,000 kilometers [almost 4,350 miles] per second, and will rip through anything they happen to hit.”

So E-Space is attempting to navigate a fine line. On one hand, its plans to launch vast numbers of satellites will contribute to the number of objects flying in orbit. Yet E-Space’s satellites also will serve a dual purpose: In addition to their telecommunications functions, they eventually seek to capture space debris.

Wyler is “an innovator, a proven risk-taker” who “doesn’t just talk about change; he makes change happen,” says Amy Mehlman, vice president of E-Space. “I appreciate that he seeks to use our new advances in technology as a means to advance humanity and create equal opportunities for all those that seek to be spacefaring nations.”

While E-Space is co-headquartered in Saratoga, California, and Toulouse, France, Wyler also maintains close ties to Rwanda, where his two eldest daughters, both teens (Wyler

Impactful

It also paved the way for Wyler’s subsequent satellite-tech ventures, which have focused on expanding internet access in connectivity-challenged areas around the world. In 2007 Wyler founded O3b Networks, a company that built the first satellite network in medium-Earth orbit (MEO) to provide broadband access to the “other 3 billion” people in developing countries. And in 2012 he founded OneWeb, a company focused on providing affordable, high-speed internet access using a first-of-its-kind LEO satellite constellation, aimed primarily in remote and underserved areas.

The work has earned Wyler global recognition: In 2017 the World Economic Forum named him a “technology pioneer,”

has five kids in all) are leaders of an effort to promote STEM education through a LEGO robotics league. The young Wylers have raised more than \$500,000 in support of their venture, called STEM Inspires, and governments across Africa are asking to be next in line as the program expands.

The kids are in charge, but Wyler is happy to advise. Wyler assures his children that anything’s possible for a creative, passionate, and well-prepared entrepreneur. After all, he’s experienced it first-hand.

“When you’re on a team that’s trying to accomplish something that’s amazing and that’s never been done before, then you’re not at work, you’re on a mission,” Wyler says. ●

Class Notes

1960s

MIKE ARONSON (PHYS '64), Corvallis, Ore., was presented the Majestic Volunteer Lifetime award in recognition of his contributions to Corvallis's Majestic Theater in 2022.

LEWIS THIGPEN (M.S. MECH '67, PH.D. '70), Alexandria, Va., received the Howard University 2023 Alumni Award for Distinguished Postgraduate Achievement.

JASON CHANG (M.S. IE '69), Taipei, Taiwan, chairman and CEO of ASE Technology Holding Co Ltd., was awarded an honorary doctorate by National Cheng Kung University in Kaohsiung, Taiwan.

1970s

MICHAEL J. BERGER (LAW '73), Highland Park, Ill., a family law attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2005–2023.

ELDON HAM (LAW '76), Glencoe, Ill., published an article on April 24, 2023, in the *Chicago Sun-Times* titled, "How William Wrigley Jr. Brought Soap, Gum, and Chicago Baseball Broadcasting Together."

RALPH E. MECZYK (LAW '77), Northbrook, Ill., a white collar crimes attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2015–2023.

STEVEN GLICKMAN (ARCH '78), Bethlehem, Pa., was elected chairperson to the Lehigh Valley Planning Commission and celebrated the 22nd year at his firm, Steven Glickman Architect.

JEFFERY M. LEVING (LAW '79), Chicago, received the President Joe Biden 2023 Presidential Lifetime Achievement Award, along with a proclamation from the Illinois Senate, to recognize his advocacy for fathers.

1980s

MICHAEL M. MARICK (LAW '82), Chicago, an insurance coverage attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2005–2023.

PAT MORRIS (LAW '83), Kenilworth, Ill., was recognized in December 2022 as an advocate for diversity at the Diversity Scholarship Foundation's 2022 Unity Awards Gala.

STAN SCHACHNE (ARCH '83), Davie, Fla., was presented with the 2022 Community Service Award from the Fort Lauderdale, Fla., chapter of the American Institute of Architects.

BOB P. THEEL (ARCH '83), Chicago, has joined EXP, a global architecture, engineering, and design firm, as vice president of federal design strategy.

PAUL KRYSOSEK (PH.D. CS '86), Murrysville, Pa., has retired.

ISAAC K. GAMWO (M.A.S. CHE '87, PH.D. '92), Murrysville, Pa., recently led the equation of state research group as part of his work as a senior research chemical engineer in the United States Department of Energy's National Energy Technology Laboratory in Pittsburgh.

CYNTHIA "C.J." WARNER (BA '87), Nevada, Iowa, has been appointed to the Board of Directors for Bloom Energy.

JOHN W. WATSON (LAW '88), Lincolnshire, Ill., an environmental attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2012–2024.

MICHAEL BERTUCCI (LAW '17), Chicago, was installed as treasurer of the Justinian Society of Lawyers in September 2022.

MICHAEL J. CHOATE (LAW '89), Glenview, Ill., a securities and corporate attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2018–2023.

1990s

RICHARD NICOLAIDES JR. (LAW '91), Winnetka, Ill., an insurance coverage attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2009–2023.

RAJ RAJARAM (LAW '91), Oakbrook, Ill., authored *Climate Change and Environment: How it Impacts Us All* with co-authors Lynn Tiede and Keith Olson. The book was published in 2022 by Notion Press.

MATT WALSH (LAW '92), Indian Head Park, Ill., was recently elected to a two-year term on the Chicago Bar Association's Board of Managers and was the co-chair of the CBA's 2022 Pro Bono Week.

ANURAG GUPTA (M.B.A. MKTG '94), Weston, Fla., was recently appointed to the Board of Governors at Nova Southeastern University.

STACEY FEELEY CAVANAGH (LAW '95), Chicago, has earned a Top 100 Trial Lawyer designation from the National Trial Lawyers since 2012 in honor of her outstanding professionalism and success.

TOR HOERMAN (LAW '95), Edwardsville, Ill., a products liability attorney, has been selected as a 2023 Top 100 Illinois Super Lawyer, and has received the *Super Lawyer* distinction as a "top-rated attorney" from 2012–2023.

JON ATWOOD (CHE '96), West Linn, Ore., has joined Trillium Engineering as chief executive officer.

SCOTT FISHER (LAW '96), Chicago, partner at Neal, Gerber, & Eisenberg, was featured in *Crain's Chicago Business Magazine's* 2023 Notable Litigators and Trial Attorneys in March 2023.

JILL WEBB (LAW '96), Chicago, has been named a 2023 Top 100 Illinois Super Lawyer and a 2023 Top 50 Women Illinois Super Lawyer.

Human Side of Technology

“I DON’T KNOW WHY I want to act like I have an aversion to nerds, when I’m a nerd myself,” laughs Sydney Hardwick (ITM ’15), speaking not only of her time growing up on Chicago’s South Side, but also of her evolution as a student and her start in a career that appears to perfectly integrate her soft skills with the technical instincts she has honed all her life.

Working as a staff program manager for design at Visa, Hardwick now empowers multidisciplinary teams of designers, researchers, and engineers to create global, future-focused products and services for the company. She was also recently honored by the Greater Austin (Texas) Black Chamber of Commerce as its 2022 Emerging Business Leader of the Year.

“Problems don’t scare me, they excite me. I can wrap my arms around them,” Hardwick says. “I love to uncover who the players are, what the landscape is, and where those problems might scare people.

“My love of technology started pretty young,” Hardwick adds. In the fifth grade, before she learned how to type, she started fiddling around with a dial-up Compaq computer. When she attended Queen of Peace High School in Burbank, Illinois, Hardwick repaired computers part-time in the school’s tech lab, in addition to working at a fast-food restaurant.

Though she liked computer engineering, Hardwick gravitated toward user experience and project management courses, and jobs that were more aligned with improving user experience. She took an internship doing web development work for a female-founded health and wellness startup in Chicago.

“With their guidance, I negotiated my (meager) pay, and learned about what it takes to build and manage a startup. ...I

learned so much from those women,” Hardwick says.

In her next internship, at Visa, she completed a major project developing representative personas of its employees—complete with goals, motivations, and frustrations—to help the company figure out which tools would help its employees work better.

“I really was inspired by the work. I had only taken one user experience course,” Hardwick says. “Interning at Visa helped me to apply the theoretical lessons from my coursework and put them into practice. I was incredibly intrigued, as the user experience field, while established, was still evolving.”

Hardwick distinguished herself at Illinois Tech’s former School of Applied Technology, where she was honored as the school’s Commencement speaker.

After being hired full-time by Visa after graduation, Hardwick researched human interactions with both internal employee tools and external, consumer-facing products. She worked in a lab,

asking potential customers of her clients questions about why they conducted tasks the way they did, and how. She then applied her technical experience to suggest possible ways to comfortably fit those preferences into a product like a mobile app or online tool.

Hardwick found that she “got more joy from scoping out the project with the client,” and pivoted again, into program management. In her new role, she combines her well-honed instincts relating to how humans react to different products and designs with her ability to manage strategic initiatives for the global design team.

“My role over my eight-year tenure has evolved every two years,” Hardwick laughs. “Early on, I wondered whether I should stick with the roles I knew well, because I was comfortable in them. But no, I told myself, ‘You got this down, you figured out what you like about it, and the area you want to move into next.’ And that became one of my superpowers.” —*Tad Vezner*



Sydney Hardwick (ITM '15)

Keeping the Lottery Fun and Fair



Harold Mays (EE '89)

THE ILLINOIS LOTTERY has more moving parts than a big payout check, and an Illinois Tech alumnus is in charge of making it fun and fair for all.

As a student, Harold Mays (EE '89) never imagined working for the state government for almost 20 years, let alone as the director of the Illinois Department of the Lottery, a position he has held for five years. Helping fund Illinois schools and special causes through lottery game sales falls under Mays's watchful eyes.

"Most people know of the lottery, but they have no idea what goes on behind the scenes to enable the sale of our games in 7,000 retail outlets and online, what systems and processes are necessary to ensure the security and integrity of the lottery and provide players with a satisfying experience. It's very interesting and complex," Mays says.

Mays's affinity for math in high school led him to an electrical engineering degree, but he hasn't used that technical expertise for years. Instead, he leans on the softer skills that he learned at Illinois Tech.

"I haven't done any hardcore engineering for almost 20 years, but it is and was the foundation for everything I've done in my career," Mays says. "It taught me how to think, work together to solve problems, and the value of relationships. That value helped me the most."

The lottery's relationship with Illinois schools is a driving force for Mays. Since 1985 the Illinois Lottery has contributed more than \$24 billion to the Common School Fund. The Illinois Lottery also launches "specialty instant games" in support of such causes as the Special Olympics.

"What we do really means something. Every ticket we sell makes a difference. It gives me a lot of job satisfaction, knowing our proceeds are doing something good," Mays says.

Mays finished his time at Illinois Tech focusing on power engineering, which led to a 10-year career at ComEd. His interest in project management led to work in telecommunications and technology.

Mays would eventually work for

the Illinois Department of Central Management Services, the group that makes sure the rest of the state government can function. A decade ago, he became chief of operations and technology at the Department of the Lottery.

As a man of many hats, and career changes, Mays encourages everyone to create their own path, regardless of where life leads you.

"Be open-minded to opportunities. There's no way I could have anticipated being where I am today, shifting from engineering to lotteries. I couldn't have planned that, but I was willing to try new things," Mays says.

Mays now hopes to pass on his knowledge to the current generation of Illinois Tech students as a member of the Alumni Board.

"From my housing project origins and coming of age in the Lawndale community on the West Side to college at Illinois Tech and ultimately where I am now—I can relate to kids that don't have a conventional path," Mays says.

— *Thaddeus Mast*



Ryan Cummings's wedding celebration included many alumni in attendance. [From left] Austin Bradshaw, Melissa Hoelting (ARCH '15), Kari Winiacki, Cory Winiacki (AANL '17), Bob Hoel (BE '70), Nancy Hoel, Price Vetter (ME '11), Amy Vetter, Sarah Palmer (BME '19), Calvin Demski (ME '19), Holly Pepper, Stephen Pepper (BA '15), Ryan Cummings (CE '15), Margaret Cummings, Robert Patten, Sean Hahn (CE '17, M.E. STE '17), Layla Riadi, Ramzi Riadi (EMGT '15), Martyn Lyn, Hans Griesse (ARCH '15), Caitlin Griesse, and Paulo Moretto Kodaira (MSE '20, EMGT '20).

RAY SCHROCK (LAW '98), Rye, N.Y., was recognized and profiled by *Business Insider* as a top restructuring attorney in August 2022.

2000s

SURENDRA BYNA (M.S. CS '01, PH.D. '06), Powell, Ohio, joined the computer science and engineering department at The Ohio State University as a full professor in spring 2023.

MICHAEL J. DELRAHIM (LAW '02), Chicago, a real estate attorney, received the *Super Lawyer* distinction as a "top-rated attorney" from 2022–2023.

ZUYI LI (PH.D. EE '02), Naperville, Ill., a professor of electrical and computer engineering at Illinois Institute of Technology, was appointed as the Grainger Chair in Electrical and Power Engineering.

JALES KALRA (M.S. CHE '05), Naperville, Ill., published an article on the blog *Albamarle* about the importance of bromine in 2023.

TONYA G. NEWMAN (LAW '05), Chicago, was featured in March 2023 in *Crain's Chicago Business Magazine's* annual listing of notable litigators and trial attorneys.

2010s

JULIE CHANDLER (CE '07, M.E. ARCE '16), Aurora, Ill., joined Resource Innovations as an energy engineer IV. She performs energy engineering services for utility and end-use commercial and industrial clients.

MARGARET BATTERSBY BLACK (LAW '08), Elmhurst, Ill., was named managing partner of the law firm Levin & Perconti in Chicago.

EMILY KUNKEL (CHE '11), Chicago, has been appointed vice president at Thornton Tomasetti, an applied science practice, to help grow its decarbonization business.

MATT BUENCONSEJO (M.A.S. FST '15), Deerfield, Ill., accepted a position at the United States Food and Drug Administration as a food specialist.

RYAN Z. CUMMINGS (CE '15), Chicago, married Peggy Flemming in July 2023.

2020s

HANS JOHNSON (M.S. EE '21), Minnetrista, Minn., was awarded a United States Department of Energy fellowship working in quantum computing at Fermi National Accelerator Laboratory.

MEREDITH LUDLAM (ARCH '21), Omaha, Neb., has joined CPL as an architectural designer in Pittsburgh.

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Making a QCD is straightforward: Simply instruct your IRA administrator to directly transfer funds from your IRA to Illinois Institute of Technology.

By giving through a QCD, you can potentially:

- Partially or entirely fulfill your required minimum distribution obligations
- Reduce your taxable income as any portion of your required minimum distribution used as a QCD is not counted as income
- Reduce the amount of future required minimum distributions by giving through your IRA and reducing the total amount in your IRA

QCDs at Illinois Tech

Make a QCD to join Illinois Tech's legacy of inclusive innovation. By doing so, you empower our students, drive technological advancement, and uphold the university's mission to provide a human-centered education that uplifts students from all backgrounds to help meet the needs of our time, all the while optimizing tax savings. By directing your IRA funds as a QCD to Illinois Tech, you can help **Power the Difference**.

Things to know about QCDs:

- The maximum annual QCD amount allowed is \$100,000 per individual, providing an effective tool for tax-wise charitable giving
- QCDs must be sent directly to Illinois Tech to avoid any tax implications

To make a QCD or learn more about how QCDs fit into your giving strategy, contact the Office of Planned Giving at **312.567.5028** or **plannedgiving@iit.edu**.

**POWER THE
DIFFERENCE**
OUR CAMPAIGN FOR ILLINOIS TECH



Letter from the Alumni Board Chair

Bob Hoel (BE '70)

A new academic year always brings a bustling energy like no other across the entire university. It's a rejuvenating and inspirational feeling that is familiar to each of us Scarlet Hawks—one that comes with a true sense of excitement knowing that, at our university, cutting-edge innovations are being developed into breakthroughs that will change life as we know it. That is the difference we power.

The Illinois Tech Alumni Association fosters lifelong connections—regardless of generation—through our unified mission to harness the power of collective difference to advance technology and innovation for all.

In the spring, we celebrated the class of 2023 at our 154th Commencement Ceremony. What an honor it was to witness 2,231 graduates make the pivotal transition from “alumni in training” to officially join a robust network of more than 80,000 alumni. I am excited to watch this generation of Scarlet Hawks leave its mark on the world and witness its contribution to the betterment of our society, just as the other talented thinkers, doers, and innovators who preceded them have.

We also relaunched our regional event programming last year to reconnect with the thousands of alumni who play a vital role in allowing our opportunity engine to stay in motion. We have hosted so many of these wonderful events, and are looking forward to future convenings where we have the opportunity to mingle and celebrate the inspiring achievements of our alumni. Please stay tuned to www.iit.edu/alumni/events/regional to see when we will be in your area!

The strength of the university is a direct representation of the unwavering support of our alumni, who are commit-

ted to advancing innovation through today's students. Our world is constantly calling for new and different ways of thinking, and Illinois Tech continues to produce talented professionals who put in the hard work to answer that call.

In a climate where universities are struggling to fill seats in classrooms and enroll students, Illinois Tech is doing just the opposite. We are breaking record numbers for enrollment across all disciplines, further demonstrating that we are an educational force and global leader in inclusive innovation.

The university is perfectly positioned to continue to empower top-performing students by providing them with a tech-focused education that will allow them to excel in any endeavor they choose. As alumni, we must continue to champion today's students as we pass the baton to each of them to uphold the storied legacy of Illinois Tech difference makers.

The difference we power at Illinois Tech tomorrow is tied to the support we provide students today—whether that be time, talent, or treasure. It is more important than ever that we—as a university and its alumni community—step up to build upon our founding purpose. It is critical that we recognize the role that Illinois Tech played in our lives so that we can lead the charge for the generations to come.

Sincerely,

Bob Hoel (BE '70)

Trustee, Board of Trustees

Chair, Alumni Association Board of Directors

rhoel@hawk.iit.edu



Building the Next Era of Global Innovation

Since its founding, Illinois Tech has been creating a community of thinkers who think differently and doers who do differently, bringing together learners from different cultures with unique perspectives and experiences to innovate in ways that were never thought possible. Fortunately, generous donors to the university are eager to step up and provide meaningful support to make that possibility a reality at Illinois Tech.

Through his thoughtful philanthropy, Jim Albrecht (FE '53, M.S. '55) has remained committed to the idea of leaning into and leveraging differences to positively impact the university community and society as a whole.

"I think that Illinois Tech does a great job at embracing a multidisciplinary approach to solve some of the most pressing challenges that our world faces today. There are very few problems on this planet that will be solved by one person," says Albrecht.

To further support this type of inclusive innovation, Albrecht sponsored the travel expenses for Illinois Tech's team in the XPRIZE Rainforest competition. This global five-year, \$10 million contest is designed to convene experts across various backgrounds and disciplines to enhance our understanding of tropical rainforest ecosystems around the world.

Along with Illinois Tech Professor of Mechanical and Aerospace Engineering Matthew Spenko and his Ph.D. student, six undergraduate students were chosen to represent the university at the semifinal competition in Singapore in July 2023. Composed of members from Illinois Tech, Purdue University, Natural State, and the Morton Arboretum, the Welcome to the Jungle team is now one of six teams advancing to the finals, which will be held in 2024.

"This competition exhibits the power of the collective genius," says Albrecht. "Young people don't necessarily know all that they are capable of yet, which is why engineers, designers, scientists, and leaders from various disciplines must work together and use their singular skills and

knowledge to tackle the challenges that lie ahead. I do everything that I can to support innovation across the university and to provide opportunities that foster an environment in which students can learn and grow together."

As demonstrated by this global competition, real impact happens through the powerful connections that are forged from a shared mission—an idea that builds upon Illinois Tech's founding purpose.

"Illinois Tech is committed to harnessing the power of collective difference to advance innovation for Chicago and communities around the world," says Illinois Tech Interim Vice President for Advancement Beth Campbell. "The thoughtful leadership and generous investments from the Illinois Tech community open the door for unmatched experiential learning opportunities that will ignite real change. Together, we are able to embrace and amplify the true potential of our students, faculty, staff, and alumni and to create the next era of innovation."

Albrecht spent his entire career in the food industry, working for big-name brands such as Coca-Cola, Nestlé, and McCormick. He has always been a firm believer in a multifunctional approach to solving business problems, which is what kickstarted his philanthropic journey at Illinois Tech and motivated him to invest in the university's Interprofessional Projects (IPRO) Program.

Albrecht is proud of his Illinois Tech education and all that it has allowed him to accomplish in his career, and now dedicates his philanthropic efforts to supporting and mentoring future generations of leaders. He believes that the future will be what Illinois Tech has always been: a collaboration of those who have inventive minds, empathetic hearts, and ingenious spirits that innovate because of their unique and powerful differences.

"The students at Illinois Tech are our future. I am proud to give back to my alma mater and support the next generation of difference makers," adds Albrecht. —*Brianne Meyer*

Abraham Zarem (EE '39)

One of the last surviving Manhattan Project scientists, Abraham Zarem died March 8, 2023, at the age of 106. Zarem joined the Manhattan Project at the age of 28, and after World War II, he headed the electrical section of the physical research division at the United States Naval Ordnance Test Station. In 1963 he became senior vice president of Xerox, but left in 1970 to launch a consulting business. He then returned to Xerox as founder and CEO of its Xerox Development Corporation in 1975. He later served as founder and managing director of Frontier Associates, a technology consultancy, and one of his companies, Electro-Optical Systems, developed an experimental high-energy thruster for spacecraft that now resides in the Smithsonian Institute in Washington, D.C. Within academia, he served as a distinguished senior adviser for neuroscience technology transfer for the UCLA Brain Research Institute and as a distinguished visiting executive in science and technology for California Institute of Technology's Jet Propulsion Laboratory.

Mitchell (Mitch) Saranow

An Illinois Institute of Technology trustee and founder of The Saranow Group, Saranow passed away on May 13, 2023, at the age of 77. A highly accomplished venture capitalist, entrepreneur, attorney, and CPA, Saranow also worked as vice president of Sunmark Companies and chief financial officer at CFS Continental Inc. He formed The Saranow Group, LLC, a private investment firm, and served as chairman and chief executive officer of various companies, including Fluid Management Inc., and as a director for numerous corporations. He became an Illinois Tech trustee in 1998. His honors include the 1994 Ernst & Young Entrepreneur of the Year Award in Manufacturing for Indiana and Illinois, an induction into the University of Illinois Chicago's Entrepreneurship Hall of Fame, and receiving the Elijah Watt Sells Award in 1981, regarded as one of the highest honors a new CPA can receive.

Roy G. Gignac (EE '52)

The founder of Engineering Design and Sales, hailed by *Inc. Magazine* as one of the fastest-growing private companies in the United States, Gignac died on April 24, 2023, at the age of 94. In addition to leading the United Way Fund Campaign for several years, Gignac served on the board of the Danville Development Council, Pittsylvania County Economic Development Organization, and Danville Industrial Development Authority. He also served as a member of Sovran Bank's advisory board, Averett University's Board of Trustees, and on the board of the Danville Chamber of Commerce. Gignac was a long-time philanthropist who supported many nonprofit organizations throughout the community, in addition to many scholarships for Illinois Tech students over the years. These scholarships included a special fund set up for local students to attend the university. In 2008 Gignac funded the Joan and Roy Gignac Research Laboratory at Illinois Tech. He was also a strong supporter of Duke University Medical Center and St. Jude Children's Research Hospital, where he established the Joan F. Gignac Pharmacogenomics Research Laboratory.

Gerald (Jerry) L. Bepko (LAW '65)

The longest-serving chancellor of Indiana University-Purdue University Indianapolis (IUPUI), Bepko died September 5, 2023, at the age of 83. Bepko served as an agent in the FBI in Jackson, Mississippi, as part of the federal government's efforts to investigate civil rights abuses and violence in the late 1960s, and was tasked with investigating violence and threats by white supremacists and the Ku Klux Klan on James Meredith's 200-mile March Against Fear. He left the FBI after a car accident and became an assistant professor of law and director of the Institute for Criminal Justice at Illinois Institute of Technology's Chicago-Kent College of Law. In 1986 Bepko became the third chancellor of IUPUI and held that position for 17 years. He also was involved in the consolidation of Indiana University hospitals with Methodist Hospitals of Indiana to form Clarian Health Partners Inc. (now IU Health). In 2004 the Bepko Scholars and Fellows program, IUPUI's most prestigious scholarship, was created in Bepko's honor. He won many awards, including the Anti-Defamation League Man of Achievement Award (2005), Daughters of the American Revolution Medal of Honor (1991), and the Indiana University Medal (2015).

Ralph L. Barnett (CE '55, M.S. MAE '58, Ph.D. CE '21)

An active leader in the safety design industry into his late 80s, Barnett passed away at the age of 89. An instructor at Illinois Institute of Technology's Armour College of Engineering for more than 40 years, Barnett worked as a professional engineer, research engineer, and director of research and development for organizations such as Armour Research Foundation and IIT Research Institute. He also founded multiple companies including Triodyne, Inc., a forensics, engineering, and science consultancy specializing in the safety of mechanical systems. Over his career, Barnett obtained 36 safety patents for products such as pool drains, household appliances, and airplane seats, among many others, and published hundreds of papers. He was also a lifelong scholar, finishing his thesis for his doctorate in civil engineering in 2021, and served as a professor emeritus at Illinois Tech during his later years.

Eliezer (Elie) Geisler

A pioneer in the field of medical technology management and a professor at Illinois Tech's Stuart School of Business for two decades, Geisler passed away at the age of 81. Geisler joined Stuart in 1999 and retired in 2019 as a Distinguished Professor of Organizational Behavior. He taught courses covering topics such as organizational behavior, health care management, leadership of multicultural organizations, and media strategy and implementation. He served on the boards of Mount Sinai Hospital and Schwab Rehabilitation Hospital in Chicago, and served as the chair of the Board of the Committee on Professional Development and Quality of Medical Care. Geisler received the prestigious Medal of Excellence Award from the Portland International Center for Management of Engineering and Technology.

Alumni

Abraham M. Zarem (EE '39)
 H. Thurber Stowell (ARCH '41)
 Jim A. Carroll (ME '43)
 Joseph M. Siegal (IE '43)
 Jack H. Slaton (EE '45)
 Thomas J. Blim (ME '46)
 Harold H. Esser (ME '47, EE '63)
 Peter J. Pozucek (ARCH '47)
 Henry L. Freund (IE '49)
 Kathleen E. Harrold née Walker (BE '49)
 Harold C. Jones (EE '49)
 Eugene Sevin (ME '49, Ph.D. '58)
 Eugene M. Zwayer (M.S. CE '49)
 Harold R. Ames (ARCH '50)
 Richard F. Bigott (IE '50)
 Robert E. Collins (IE '50)
 Ira E. Graham (FPSE '50)
 Joseph C. Kowalski (ME '50)
 Charles C. Oldenburg (CHE '50)
 Donald O. Panec (EE '50)
 Barth Pollak (MATH '50, M.S. '51)
 Morris Rosman (MET '50)
 Edmond N. Zisook (ARCH '50, M.S. '52)
 Arlene Edwards-Elliott (HEC '51)
 Gilbert W. Jensen (ME '51)
 Donald J. Lynch (IE '51)
 Otis J. Olson (ME '51)
 Walter L. Schiffelbein (EE '51)
 Roy G. Gignac (EE '52)
 Theophanis Katsulos (CHE '52, M.S. EE '62, Ph.D. '67)
 Tom T. Morimoto (CE '52)
 Russell G. Moy (ARCH '52)
 Frank A. Pizzarello Jr. (CHEM '52)
 Robert E. Wascher (ME '52)
 Eugene Crane (LAW '53)
 George C. Kent (M.S. ME '53)
 William D. Kramer (FPE '53, EE '63)
 Robert R. Olson (ME '53)
 James F. Ward Jr. (CHE '53)
 Leonard J. Gittleman (DSGN '54)
 Julius T. Hankin (IE '54)
 George M. Nakawatase (ME '54)
 Harry R. Nichols (MET '54)
 Patricia A. Smith née Turner (HEC '54)
 Warren R. Stockton (IE '54)
 Donald V. Wroblewski (ARCH '54)
 Frank G. Banach (EE '55)
 Ralph L. Barnett (CE '55, M.S. MECH '58, Ph.D. CE '21)
 Joseph A. Brudnak (CHE '55)
 Nicholas J. Cimmarusti (DSGN '55)
 Robert J. Fanella Jr. (ME '55, M.S. '58)
 James F. Novotny (IE '55)
 Alexander R. Potter (CHE '55)

Franklin J. Rich (BE '55)
 Donald G. Carr (CHE '56)
 David H. Chittenden (CHE '56)
 Henry Friedman (Ph.D. CHEM '56)
 Richard W. Sielaff (M.S. MATH '56, Ph.D. '59)
 Herbert Su Yuen Cheng (M.S. ME '56)
 Charles F. Beck (CE '57)
 Charles A. Brizzolara (LAW '57)
 Richard J. Clay (ME '57)
 John G. Erickson (ME '57)
 Joseph H. Jean (MET '57)
 Donald E. Hahn (EE '58)
 Darwin P. Kal (LAW '58)
 John A. Miller (ME '58)
 Ronald E. Nelson (BE '58)
 Joseph A. Ondraka (ME '58)
 Michael Petrick (Ph.D. CHE '58)
 William J. Polich (EE '58)
 Richard C. Reichel (MET '58)
 Ronald A. Barry (MATH '59)
 Robert F. Wenshutonis (ME '59)
 Arthur J. Witsmeer (EE '59)
 Robert J. Dvorak (FPSE '60)
 Kenneth W. Haag (EE '60, M.S. '62, Ph.D. '67)
 Allen Y. Kajioka (ARCH '60)
 Arvin Karas (ME '60)
 David J. Roberts (FPSE '60)
 Paul W. Schaff (ME '60)
 Harold B. Belson (EE '61)
 Norman W. Berger (EE '61)
 Pranas Budininkas (M.S. CHEM '61, Ph.D. '67)
 James R. Clayton (CHE '61)
 William V. Cyplick Jr. (EE '61)
 James E. Grimm (EE '61)
 James A. Inda (EE '61)
 Paul J. Keehn (EE '61)
 Kenneth F. Mauro (CE '61)
 George D. Nan (M.S. DSGN '61)
 Sherwin E. Pakin (IE '61, MATH '66)
 Evan D. Roberts (LAW '61)
 Mathew C. Vanderkop (EE '61)
 Marshall K. Hechter (MATH '62)
 Donald J. Heineman (CHE '62)
 William R. Robinson (MATH '62)
 Margaret P. Ackermann (M.S. DSGN '63)
 Malcolm L. Allison (EE '63)
 Donald J. Budka (CE '63)
 Harold L. Byerly (MET '63)
 Thomas J. Courtney (EE '63)
 Theodore A. Dahlstrom Jr. (ME '63)
 Donald J. Kempiaik (EE '63, MAE '75)
 John A. Mayr (PHYS '63)
 Robert C. Reilly (MATH '63, M.S. '64)
 Martin A. Tiersky (LAW '63)

Mario J. Cortina (BE '64)
 Tony F. Kirch (ME '64)
 George M. Levison (UNK '64)
 Henry D. Stauffer III (BE '64)
 Jerry L. Bepko (LAW '65)
 Shanti S. Gupta (M.S. EE '65)
 Phillip D. Jones (ENGL '65)
 Ferdinand E. Klamik (CHE '65, MBA '69,
 M.S. CS '93)
 William E. Ryan (EE '65)
 Larry R. Gsellman (Ph.D. BE '66)
 Larry M. Newbanks (MATH '66)
 John S. Patten Jr. (M.S. MAE '66)
 Frederick L. Schuyler (Ph.D. MAE '66)
 Leonard D. Singer (M.S. DSGN '66)
 James A. Brownlee (ME '67)
 Chester W. Kowalski (BE '67)
 Guido Minciotti (CE '67)
 Lawrence F. Piet (BE '67)
 William M. Reda (EE '67)
 Arthur A. Scott (ME '67)
 Dennis K. Scully (MAE '67, MBA '72)
 David L. Grant (PSYC '68, M.S. REHC '70)
 Russell E. Janke (MAE '68)
 Vadivelu Jeyabalan (M.S. IE '68)
 James B. Baron Jr. (CHE '69)
 Richard E. Dick (IE '69)
 Jerry J. Frank Jr. (M.S. MATH '69, Ph.D. '72)
 John E. Hayes (IE '69)
 Michael A. Kasper (BE '69)
 Fred G. Kudert (MAE '69, M.B.A. '78)
 Sang J. Choi (M.S. EE '70)
 Kenneth L. Frizane (M.S. EE '70)
 Katherine Kinney (M.S. DSGN '70)
 Dale A. Max (M.S. CHE '70)
 Reuben T. Nichols (BIOL '70)
 Robert W. Selby (LAW '70)
 Harry J. Sterling (LAW '70)
 Thomas S. Straub (Ph.D. CHEM '70)
 Donald F. Fisher (ARCH '71)
 George J. Marino (M.S. MED '71)
 Paul C. Pascoe (M.S. SOT '71)
 Dipak Roy (Ph.D. GT '71)
 Donald Lowell Wayman (MAE '71)
 Jeanne D. Daly (Ph.D. PSYC '72)
 Richard N. Erickson, Jr. (CHE '72)
 Richard Irving (EE '72)
 William S. Karro (CHE '72)
 Richard P. Miller (LAW '72)
 Leonard J. Petrucelli (LAW '72)
 Andrew R. Alex (LAW '74)
 Thomas M. Barts (MAE '74, M.B.A. '75)
 Kim R. Denkwalter (LAW '74)
 John R. Huber (EE '74)

Raymond Prazen (LAW '74)
 Vivian B. Skolnick (M.S. CNS '74, Ph.D.
 PSYC '74)
 Zane O. Wilson (M.A.S. PA '74)
 Joan C. Wing née Montgomery (LAW '74)
 Constantine A. Coulaloglou (Ph.D. CHE '75)
 James E. Dowding Jr. (M.S. PSYC '75)
 Dean T. Sedgwick (CE '75)
 Steven A. Shapiro (LAW '75)
 James J. Bertucci (Ph.D. ENVE '76)
 Stephen B. Engelman (LAW '76)
 Ronnie L. Scott (MGT '76)
 Christine B. Kay née Benedyk (M.S. CSED '77)
 John C. Mikulka (ENG '77)
 Conrad J. Knuth (LAW '78)
 Frank B. Castiglione (LAW '79)
 Elizabeth J. Rice née Jackson (LAW '80)
 Ralph W. Wallace (M.S. CS '80, Ph.D. '86)
 Linda M. Mele (M.S. ENVE '81)
 Gina S. Lackland (CRP '82)
 David C. Norris (ARCH '82)
 Lawrence J. Ryan (Ph.D. CHE '82)
 Anne M. Fleming (EE '84)
 Louis L. Kocsis (M.A.S. EM '84)
 Patricia J. Moy (LAW '85)
 Doug Miller (LAW '86)
 Nancy A. Hornyak (M.A.S. BA '87)
 Joseph N. Johnson II (M.S. MATH '87)
 Jeffrey J. Vail (M.A.S. BA '87)
 Victor Judnic (CE '88)
 Alice M. Gross (M.S. CS '89)
 Donald L. Mickey (Ph.D. PSYC '90)
 Kenneth W. Sobczak (EE '92)
 John W. McNulty (LAW '94)
 Paul A. Greco (LAW '95)
 Laura R. Seidman née Cima (LAW '95)
 Simon J. Ramirez (M.S. CS '97)
 Paul R. Day (LAW '00)
 James L. McNulty (M.S. BIOL '00)
 Tony T. Howard III (LAW '06)

Non Graduate Alumni

George Browning, Jr.
 Constance O. Dolejs
 William S. Reily
 Howard J. Rosenfeld
 Robert J. Vlasic
 Frank H. Wadsworth
 Leo L. Wolfson
 Weightstill W. Woods

Staff

Anthony Vuckovich
 John Wachowski

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 Henry R. Autry
 Penelope Bailey
 Marion Benfield
 Pamela Benish
 Willard L. Boyd
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 Howard W. Carroll
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 Kathryn Chieger
 Susan M. Choutka
 Jerome N. Clauser
 David L. Conlan
 James S. Crown
 Suzanne Dixon
 Peter Fasseas
 Ralph I. Goldenberg
 Allan Gunn
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 Nancy J. Hirsig
 John A. Holak
 Howard E. Jessen
 Richard M. Jones
 George D. Kennedy
 Peter F. Koch
 Anthony Kripas
 Barbara Letscher
 Mary D. McDonnell
 Earl T. Medansky
 Alyce Newman
 Marjorie Northup
 Helen Pollak
 Janet K. Rawley
 Carol S. Rebholz
 Jadwiga Roguska-Kyts
 Tilde A. Sankovitch
 Mitchell H. Saranow
 Louis A. Simpson
 Gene E. Smith
 Roger W. Stone
 Bram Takefman
 Carol M. Thompson
 James Twohig
 Dorothy Usiskin
 Samuel Zell

Take Five

Siva Balasubramanian serves as the Harold L. Stuart Endowed Chair in Business, professor of marketing, and associate dean at Illinois Tech's Stuart School of Business. His research includes how artificial intelligence models have been, are being, and could be adopted in the modern business world.

Q: What jobs do you feel are currently most vulnerable to elimination due to AI deployment?

A: My view is that no job is safe. Operational pressures are such that if layoffs improve the bottom line, businesses will act first and ask questions later. That is the hard truth.

Five years ago, industry offered assurances that no one would lose their jobs because of AI. If AI displaced workers in future, the message was that industry would retrain them. A recent *Wall Street Journal* article "The Disappearing White-Collar Job" questioned that premise. It appears people may lose jobs because it's difficult to retrain everyone on AI. That hit a nerve for many who believe it reflects what most CEOs think.

Q: What are the current risks associated with businesses who could turn to AI such as ChatGPT to replace white-collar jobs?

A: ChatGPT performs many white-collar tasks. But let us compare AI and human intelligence. Much of how AI works is modeled on how the human brain works. However, does AI actually think like humans, or is it some other unique type of intelligence that doesn't come close to human intelligence? My answer is the latter.

Machines do not think like humans; they just pretend to think like humans while they demonstrably do not. Even the creators of large language models (LLMs) do not fully understand how they work. That's why we encounter ChatGPT's hallucinations. Human thinking is fundamentally rich and different—there's a lot of organic thought underlying human intelligence. Human employees can also be loyal. Businesses can therefore lose a lot by outsourcing everything to AI.

Q: What current AI deployment trends have you noticed taking place in the business world?

A: Recent layoffs were characterized as a response to over-hiring during COVID-19. That disguises the real reason: the pressure to decrease costs by leveraging AI.

Businesses are under the gun on AI. FOMO (fear of missing out) drives their actions. Their anxiety revolves around "if I do not embrace AI, my competitors will race ahead." We will reach a point soon where every business has adopted AI, but the degree [to which a specific business adopts] may vary.

Q: Where do you see AI's expansion into the workforce eventually ending up?

A: The ultimate AI innovation will likely occur in the knowledge domain. This will be momentous, because it will unleash, and democratize, knowledge to levels previously unseen.

Consider Wikipedia's outline of academic disciplines that lists thousands of disciplines. Academics recognize a scholar as accomplished if they master the bulk of the literature in one discipline. The total accumulated knowledge from all disciplines basically undergirds everything that humanity knows. However, millions of publications authored by knowledgeable scientists are not widely read.

AI can change that. It possesses the remarkable ability to scan, absorb, and summarize all that knowledge in short order. It can unleash innovation by synthesizing that knowledge base in novel ways. This holds immense potential for creative multidisciplinary work, by allowing researchers to rapidly develop and cross-pollinate ideas from disparate fields. That's the awesome promise of AI for giant leaps in innovation and human progress.

Q: In what way might a worker "upskill" or "reskill" to make them more resilient to an AI replacing their job?

A: The most promising path is to learn about AI as much and as quickly as possible, to develop an informed understanding of its risks and rewards. Read all AI reports. A recent one from IBM underscores that "AI won't replace people—but people who use AI will replace people who don't."



Siva Balasubramanian

Before You Go

University on the Rise

Illinois Tech has experienced skyrocketing enrollment growth in fall 2023, with a 23 percent increase over 2022 enrollment and the highest fall enrollment in more than 30 years. The new figures run counter to a national trend of dwindling numbers of traditional college students, in large part because Illinois Tech's focus on its graduates' career outcomes is resonating with students and their families.

Photo by Jamie Ceaser



Illinois Tech students take part in the M. A. and Lila Self Leadership Academy retreat earlier this fall.

ILLINOIS TECH

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