

**BREAK
THROUGH
TECH**

2024 Year In Review

Changing the Path to Power and
Influence in Tech



A Letter from Our Founder

At Break Through Tech, we believe in creating equitable pathways. That's why we empower women and others from historically underserved communities to take on influential tech opportunities. We provide undergraduate students with the technical skills, real-world experience, peer support, and professional networks they need, so that they can help all of us reshape the world in more diverse and balanced ways. Our vision is simple. Women should be fairly represented in every room where technology decisions are being made. With this vision guiding us, I'm excited to share the remarkable successes we've achieved this year.

We are proud to have the largest [AI Program](#) of its kind in the United States with nearly 1,000 participating students, who we call "fellows," this year alone. [The New York Times](#) covered our "novel approach" and our results: 80% of students who participate in our program land tech positions. These results demonstrate what's possible when we invest in expanding access to opportunity—and that's what we're doubling down on, thanks to a transformative gift from [Pivotal Ventures](#), led by Melinda French Gates and her team. This bold support goes beyond funding—it embodies a deep ambition to drive systemic change and craft a future in which every woman has the opportunity to thrive and lead.



of Break Through Tech fellows land tech positions



of fellows are women or gender nonconforming



of fellows are Black, Latinx, Native, low-income, or first-generation college-goers

Together with support from the [Strada Education Foundation](#), we are extensively researching one of the most important components of our programs: industry engagement. There's not a better partner in this space, and together we hope to make a contribution that will advance the field of work-based learning, building on what we've already learned and achieved through our flagship programs: [Sprinternships™](#) and [AI Studio](#).

In 2024, we also had the pleasure of engaging a committee of exceptionally talented leaders from across academia and industry in an effort to design a concept for a new early career leadership program module, thanks in part to support from the Estée Lauder Companies Charitable Foundation and Cadence Design Systems. This focus on early career development will help prepare our fellows to lead long before they have positional power.

We all know that artificial intelligence (AI) represents the dawn of an unprecedented and rapidly evolving technological era. Given the speed of change, there is a fierce urgency now to address the startling lack of diversity in the rooms where world-changing tech decisions are happening.

Today, [women comprise less than 25 percent of the AI workforce](#), and Black and Hispanic representation in AI remains in the single digits. This disparity isn't just a matter of statistics; it's a looming crisis that threatens to embed biases into the infrastructure of our tomorrows. As I [said in a recent speech](#) on AI education and access: "Make no mistake about it. The lack of diversity in AI is dangerous."

Of course, AI's promise to solve challenges is thrilling, but we must also always be thinking about the potential perils of new technologies or we will face what might be best described as "automated discrimination" as we see the proliferation of AI systems that are trained on data that underrepresents or misrepresents various aspects of gender, race, ethnicity, socioeconomic status, and so on. Looking ahead, those kinds of risks will only become greater challenges if we don't change the mix of people addressing them. That's why we remain more committed than ever to bridging the gender and racial equity gaps in tech.

As billions of dollars are invested in advancing AI, we must ask ourselves: Can we afford to let a narrow slice of humanity shape this transformative technology? We believe that the answer, for the sake of our collective future, must be no. So Break Through Tech will keep working and innovating to successfully prepare a diverse mix of qualified people to meet employers' growing needs for tech talent across industries. And as we do that, we will build a community of empowered change agents who will lead us into a brighter future.

*Happy New Year,
Judy*

We're Expanding

As AI continues to affect more and more of how we live and work, we know that it matters who is “in the room” where the technology decisions are being made and where design and development are happening. We also know there’s no scarcity of diverse talent interested in learning about AI and machine learning (ML), and getting a foothold in an AI career. But there *is* a scarcity of access to coursework and instructors who can teach these cutting-edge skills, and there is unequal access to opportunities for students to work on real-world projects that are a requirement for getting their foot in the door of an internship or job. That’s why we’re continuing to invest in and expand our free [AI Program](#)—an innovative approach to democratizing access to the AI ecosystem.

Our Approach



As we continue to expand our offerings, we recognize the importance of honoring the variety of resume credentials our programs provide for undergraduate students. We call the undergraduate students who participate in Break Through Tech programs, including the AI Program and others, “fellows” because this title reflects the rigorous selection process and the high achievement required to participate in our programs. It also emphasizes their preparedness to lead and innovate. As a result of participating in Break Through Tech programs, fellows gain technical skills, real-world experience, a network of professionals, and a community of peers—and they believe that they will be the changemakers of a technology-enabled future.

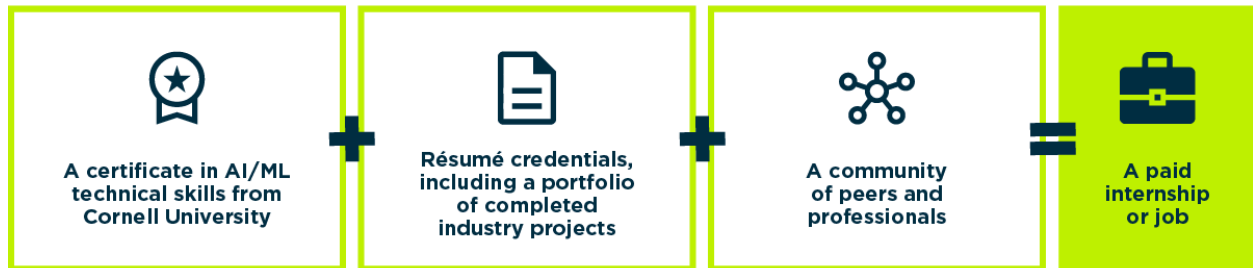
Our AI/ML instructors work at top-tier universities, including Cornell Tech, Massachusetts Institute of Technology (MIT), University of Illinois Urbana-Champaign, University of Maryland-College Park, and more. These partner universities, our “instructional hubs,” are at the forefront of our mission to expand access to AI and ML education. This year’s \$2 million award from the [National Science Foundation](#) (NSF) will help us continue expanding this already successful flagship program and thereby democratize access to AI education. We will use this funding to develop an even wider network of instructors who are trained to teach our machine learning (ML) course to our fellows.



“This NSF grant will allow us to broaden efforts to reach more communities around the country and meet the industry’s talent needs to bolster the future AI workforce.”

—Deborah Estrin, Associate Dean for Impact at Cornell Tech

The Outcomes for AI Program Fellows



Another flagship program we offer is [Sprinternships](#)[™]. These immersive three-week micro-internships in January and May, during academic breaks, provide real-world experience and an important resume credential for undergraduate students. In 2024, we grew the reach of our program by serving more than 580 fellows across CUNY, the University of Illinois Chicago, the University of Maryland, and Florida International University—as well as our first cohort of Sprinterns[™] attending the University of Texas, with fellows in Dallas and Plano. Consistent with previous cohorts of this program, more than 77% of 2024’s Sprinterns[™] have secured an internship or full-time role, with a notable 25 fellows securing full-time employment after their Sprinternship[™] with Verizon.

We're Evolving

Over the past year, Break Through Tech has built a national team to expand direct access to more students across the United States. This intentional shift away from a place-based delivery model enables us to achieve greater scale, efficiency, and impact as well as a more sustainable delivery model. We are building on much of what we've learned and accomplished in our first five years, including these highlights from 2024:

- University of Illinois Chicago (UIC): A team of six Break Through Tech undergraduates won the “Best Student Presentation” award at the 2024 Chicago Quantum Summit for their project, *Diamond Etching: Using Computer Vision to Automate the Production of Quantum Bits*.
- University of Maryland (UMD): A student cited Break Through Tech’s Sprinternship™ program as a key milestone on her journey to being selected for the prestigious U.S. Department of State Foreign Affairs Information Technology Fellowship 2024 cohort.
- Massachusetts Institute of Technology (MIT): A team of fellows from Boston won Break Through Tech’s annual Kaggle competition by building the best-performing image classification system to support a climate science challenge hosted by the world-renowned New York Botanical Garden. The fellows’ accomplishments were featured in *Reinvented Magazine*, a publication aimed at inspiring K-12 girls to pursue careers in tech.
- University of California Los Angeles (UCLA): The team in Los Angeles hosted 222 AI fellows in its largest Break Through Tech AI Program cohort yet.
- Florida International University (FIU): The team in Miami piloted a new data science-focused work-based learning program, Data Corps, which debuted with 28 fellows working alongside employers on real-world data projects.



“By exploring different branches and applications of machine learning, Break Through Tech has shown me the versatility of ML and how it can be applied across various fields.”

—Tanvi Ladha, Break Through Tech Fellow at UC Santa Barbara

By the Numbers

Since we launched in 2016, our organization has continued to increase its reach. We work with ambitious, high-potential learners who are seeking tech degrees and careers, supported by dedicated instructors, industry leaders, and a passionate alumni community. By working collaboratively at critical steps of the journey, we are able to connect qualified job seekers with ready-to-hire employers.



We're Connecting

Part of Break Through Tech's differentiated value comes from the strong, collaborative relationships we've built with industry leaders. In fact, our industry partnerships are a cornerstone of our mission to diversify tech and remove barriers. To help provide our fellows with real-world training, professional mentorship, and entry-level career placement opportunities, in addition to the technical skills they learn through coursework, we worked with a network of more than [250 organizations](#) in 2024. These experiences not only equip fellows with essential skills but also empower them to list critical resume credentials that open doors to influential tech careers.



“AI will continue to have a growing and disproportionate impact on society, and we want to build the pipeline of women leaders shaping AI and ensure companies deploying AI are maximizing its benefits and minimizing its harms.”

**—Renee Wittemyer, Vice President
of Program Strategy at Pivotal**

In addition, these partnerships bring tremendous value to the companies involved. By hosting and working with our students, organizations gain access to innovative thinking and fresh perspectives on their business challenges. Plus, our programs provide opportunities for existing employees to step into mentorship and leadership roles, developing key skills that enhance their own professional growth and strengthen their teams. We're grateful for the dedication and support of all our industry partners—leaders who share our vision for a more equitable and inclusive tech industry.

In 2024, nearly 100 companies participated in our [AI Studio](#), providing a real-world business challenge for our fellows to solve, leveraging their skills in artificial intelligence, data science, and machine learning. Companies that took part in this program represented a range of industries, including finance, healthcare, beauty, hospitality, and nonprofits. AI Studio partners have included Accenture, Allstate, Cadence Design Systems, the Clorox Company, DXC Technology, Google, JPMorgan Chase, Memorial Sloan Kettering Cancer Center, the Michael J. Fox Foundation for Parkinson’s Research, Michelin, Planned Parenthood Federation of America, UNICC, and Verizon.



“The practical exposure gained through the program, particularly in the apprenticeship with Allstate, showcased the real-world impact of machine learning in areas like data analysis and risk assessment.”

—Navya Gangrade, Break Through Tech Fellow at Arizona State University

Nearly 100 companies also opened their doors to welcome Break Through Tech fellows into their workplace for Sprinternships™. Notable Sprinternship™ hosts have included Verizon, American Express, the Argonne National Laboratory, Capital One, El Paso Water, Frontier Communications, Giant Eagle, Mastercard, Oracle, Ultimate Kronos Group (UKG), and Wyndham Hotels.



“These young, bright minds have brought so much energy and curiosity into our building as they ventured into their first corporate experience in technology.”

—Lauren Ottulich, Director of Community Impact, Mastercard

In addition, companies hosted events and mentorship opportunities: introducing fellows to researchers and engineers who address societal challenges like the climate and biodiversity challenges, offering visits to iconic places like the New York Stock Exchange, and providing networking opportunities with professionals. While a full list of our industry partners can be found [here](#), we want to put a spotlight on a few of the truly extraordinary opportunities that our partners have provided for our Break Through Tech fellows.

Spotlight on Google

As part of our Spring AI Studio, Google employees with expertise in data science and machine learning volunteered to provide support to our AI fellows as they tackled a complex image classification challenge from the [New York Botanical Garden on Google's Kaggle datathon platform](#). Through virtual office hours, hands-on coding support, and responding to questions in the competition forum, the Google volunteers offered invaluable guidance as our fellows built ML models with an eye toward advancing biodiversity research.



The company also hosted 14 [AI Studio](#) teams this year—the highest number of any industry partner to date. In total, 62 of our AI fellows teamed up with Google to tackle one of three machine learning projects, each focused on a distinct topic: mental health and wellness trends, search query recommendations, and viral video forecasting. Additionally, 24 Google employees volunteered to be the fellows' challenge advisors, helping them set project objectives and providing technical guidance as they met regularly with their assigned teams from August to December.

Spotlight on the New York Stock Exchange and Boss Beauties

In March, we celebrated Women's History Month by partnering with Boss Beauties to host [a panel discussion](#) at the New York Stock Exchange. Fellows who attended heard the opening bell on the floor of the stock exchange, had breakfast in the famed Muriel Siebert Boardroom, learned about career opportunities in tech, and had the chance to network during speed mentoring sessions with industry leaders from Citadel, Mastercard, Verizon, and other companies.



Spotlight on the Algorithmic Justice League

This summer, we announced an engagement with the Algorithmic Justice League (AJL), led by Dr. Joy Buolamwini, to address representation and bias in AI development. At the kickoff to our Fall [“Bridge to Studio.”](#) Dr. Buolamwini joined Judith Spitz, our CEO, for an insightful discussion about her pioneering work on algorithmic bias. Hundreds of fellows attended this event, and we’ve since been offering ongoing workshops on algorithmic justice in partnership with AJL. This collaboration aims to equip future female technologists and others from historically underserved communities with tools to ensure that AI systems remain fair, transparent, and ethical.

Spotlight on Verizon

In 2024, we expanded our long-standing partnership with Verizon and started offering a custom-designed talent pipeline program. During the year, 88 fellows participated in virtual Sprinternships™ with Verizon (with one cohort participating in January and another in May). Out of those, 94% received offers to return to Verizon as summer interns, and 25 Sprinterns™ accepted offers of full-time employment at Verizon after graduation. Additionally, Verizon sponsored [AI Studio](#) project teams virtually as well as in Los Angeles and Boston.



“My team worked with datasets with more than 10,000 rows and developed a machine learning approach to determine the best zones for the rollout [of Verizon’s 5G network]. We also worked with infrastructure data, such as the location of manufacturing facilities, college campuses, and hospitals.”

—Pascale Michaud, Break Through Tech Fellow at Worcester Polytechnic Institute in Massachusetts

Spotlight on Citadel

In July, we co-hosted a special event with Citadel, a multinational hedge fund, and Citadel Securities, a market-maker firm and supporter of our work. With the support of Bonnie Tom, COO for the CIO’s office, and Charlotte Hennessy, corporate philanthropy manager, the day’s programming included a panel featuring women in technical roles at the company, a seminar on public speaking, and a resume workshop. Our fellows provided overwhelmingly positive feedback, highlighting the insights they gained into the intersection of tech and finance, the strengthening of their professional portfolios, and the sense of community they built.

Spotlight on Accenture

In the fall, fellows came together at the Accenture offices in New York City to network with career professionals, meet other students from a mix of universities in the tristate area, and have professional headshots taken. Our keynote speaker, [Allie Miller](#), LinkedIn's #1 Most Followed Voice in AI Business with more than 1 million followers on LinkedIn, shared her own experiences as an AI business leader, and then participated in a panel discussion with two Accenture leaders, [Lee Barrett](#) and [Teresa Tung](#), followed by a Q+A session and networking opportunities. Additionally, Accenture hosted 50 fellows across 10 ML projects as part of this fall's [AI Studio](#).



Support Our Work

Join us and help change the path to power and influence in a tech-enabled world. We're always looking for more industry partners and professional mentors to work with the fellows in our programs. If you're interested in helping launch the next generation of talent into the tech ecosystem, please connect with us on [Instagram](#) and [LinkedIn](#), and [email us](#) with any questions.