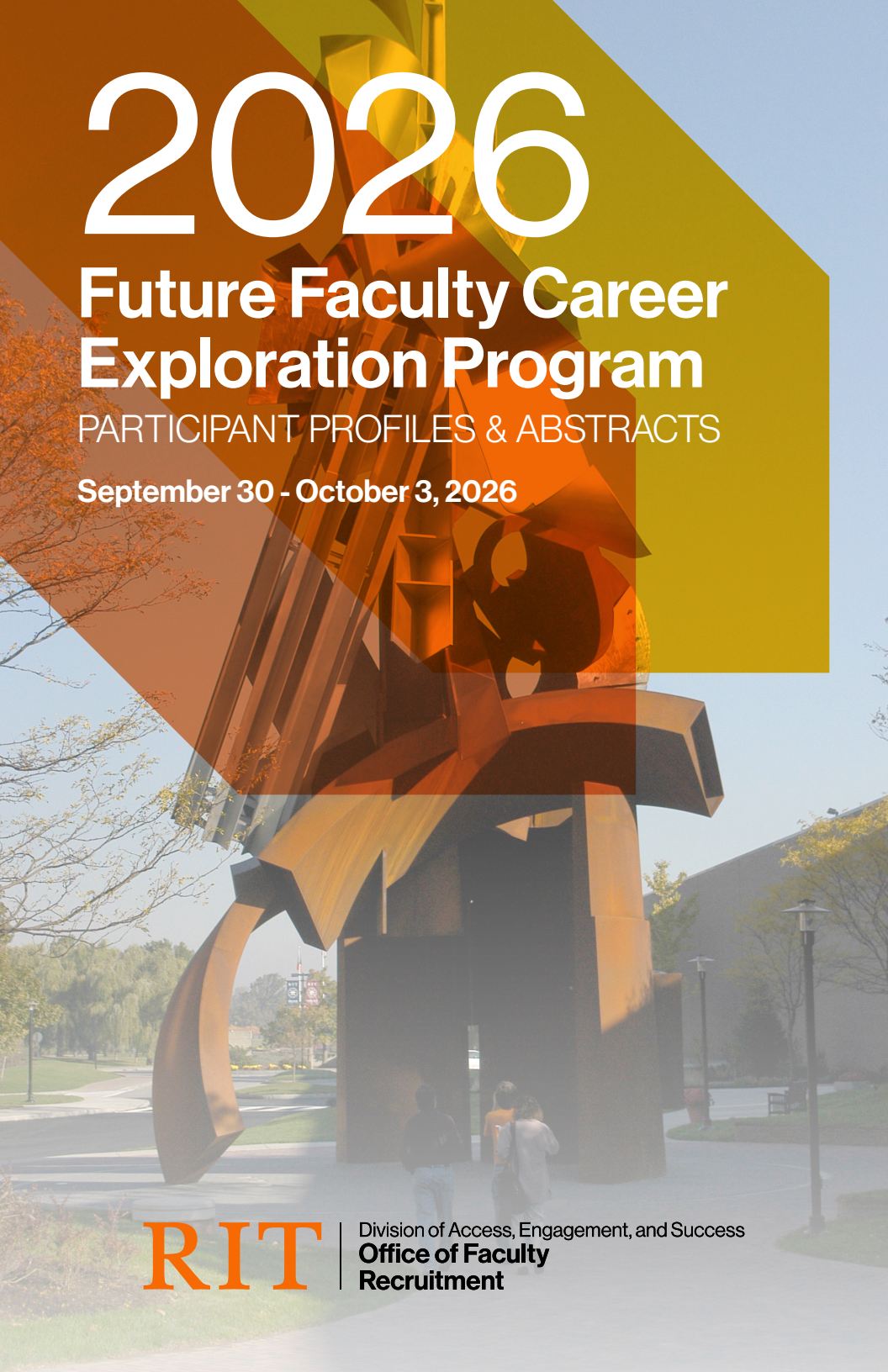
2026

Future Faculty Career Exploration Program

PARTICIPANT PROFILES & ABSTRACTS

September 30 - October 3, 2026



RIT

Division of Access, Engagement, and Success
Office of Faculty Recruitment

This year, Rochester Institute of Technology is proud to welcome the 23rd cohort of participants in our Future Faculty Career Exploration Program. Your participation highlights our effort to support the development of outstanding current and future scholars.

RIT is one of the few universities in the nation centered on technology, the arts and design. We aim to consciously link our programs in business, liberal arts, and the health sciences to these foci. Our research programs, including artistic and scholarly expression, are expanding and creating exciting educational opportunities for our students. We are always seeking faculty who can harness RIT's creative and innovative spirit to elevate learning, discovery and student experience.

The Future Faculty Career Exploration Program is a nationally recognized initiative that exemplifies our tradition of programmatic innovation. It brings talented scholars to campus to explore opportunities in teaching, research, and scholarship. As you engage with the program, I invite you to reflect on how your expertise and aspirations align with RIT's culture. Where might you make a meaningful impact—on our students, within our academic community, and beyond?

This program is designed not only for us to learn more about you and your work, but also for you to gain deeper insight into RIT. I hope you'll find inspiration in the stories of our students and faculty and see how RIT supports success both inside and outside the classroom.

As RIT's president, I'm especially honored to greet you, and I am thrilled to engage a group of scholars who represent the future of academia. Your participation in this program is a meaningful part of our mutual journey forward.

Welcome to RIT—I'm truly delighted you're here.

William H. Sanders
RIT President

Future Faculty Colleagues,

I am delighted to welcome you as part of the 23rd cohort of the Future Faculty Career Exploration Program at Rochester Institute of Technology. This program plays a crucial role in recruiting exceptional faculty to RIT and creates opportunities for you to build a network among peers as you prepare for your university careers. Congratulations on being selected to participate in our annual program!

The Future Faculty Career Exploration Program plays an integral part in making RIT a dynamic and exceptional university. This nationally recognized program is designed to help us learn more about you, your research and career interests. It also allows you to get a first-hand look at RIT. While you are on campus, you'll meet with faculty and share your research, scholarship, and artistic work.

Our team in the Office of Faculty Recruitment in the Division of Access, Engagement, and Success has worked tirelessly to organize a campus visit that allows participants at the earliest stages of their academic careers to explore opportunities at RIT.

Thank you for participating in this engaging and exciting professional development opportunity and welcome to RIT.

Sincerely,

Prabu David, Ph.D.

Provost and Senior Vice President for Academic Affairs

Congratulations on being selected to participate in the 23rd class of Rochester Institute of Technology's Future Faculty Career Exploration Program! I applaud your many achievements to date and take great honor in formally welcoming your participation in this exciting four-day RIT event.

RIT advances the exceptional through a welcoming and inclusive environment! The values of access, engagement, and success are fundamental aspects of RIT's identity as an institution and are intrinsically tied to its historic strength as one of America's most innovative and forward-looking universities. The I am RIT Faculty campaign highlights and celebrates some of our outstanding faculty.

You might be pleased to learn that INSIGHT Into Academia magazine recognized Rochester Institute of Technology as a 2025 Higher Education and Distinction (HEED) Award recipient, marking the eleventh year in a row RIT has received this honor. Winds of Change magazine, for the 16th year, listed RIT as one of the "Top 200 Colleges for Native Americans." Today, RIT continues to focus on creating pathways to higher education for all students, faculty, and staff, thus, addressing barriers that create access and success gaps. We understand well the importance of fostering a supportive campus environment through meaningful initiatives and programming that empower and enrich the RIT community. So, we are honored to welcome you to our campus as we learn more about each other.

An outstanding program has been prepared for you. During your visit, I hope your many questions regarding RIT/NTID—our students, staff, faculty, programs, departments, colleges, campus and community—are addressed and answered. Most important, I hope you get a better idea of your potential space in the RIT family as we both explore the many opportunities for a wonderful relationship.

Keith Jenkins, Ph.D.

Vice President and Associate Provost for Access, Engagement, and Success

Dear Colleagues,

It is with great enthusiasm and heartfelt congratulations that I welcome you to the 23rd cohort of the Rochester Institute of Technology's Future Faculty Career Exploration Program. Your selection for this initiative speaks volumes about your dedication and impressive achievements to date. We are truly honored to have you join us.

At RIT, our pursuit of inclusive excellence is a cornerstone of our institutional values. This program exemplifies our commitment to cultivating thought leadership and fostering innovation across all areas of academic life. We believe that creativity and progress flourish when fueled by a wide range of perspectives and experiences.

Representing the Office of Faculty Affairs, our mission is to support faculty growth through forward-thinking policies, purposeful programs, and dynamic professional development opportunities. We strive to empower faculty at every stage of their careers, and I'm eager to share more about the resources and support available to you during your time with us.

Your involvement in the Future Faculty Career Exploration Program is deeply appreciated. We view your participation as a vital step in shaping a vibrant, forward-looking academic community. I'm excited to collaborate with you and explore possibilities for your future at RIT.

Thank you for joining us on this journey. With your insights, passion, and scholarship, we look forward to building a future defined by creativity, excellence, and lasting impact.

LaVerne McQuiller Williams, Ph.D., J.D.

Associate Provost for Faculty Affairs

Office of Faculty Affairs

Dear Future Colleagues,

Congratulations on your acceptance into RIT's Future Faculty Career Exploration Program. On behalf of the Office of Faculty Recruitment, I welcome you to Rochester, NY., and to the 23rd cohort of the Future Faculty Career Exploration Program.

After a rigorous national search, you were selected from among the brightest minds in the nation. Your cohort embodies an extraordinary level of research excellence, artistic vision, skill, and expertise — truly among the very best we could have hoped to bring together. Furthermore, your presence honors us and exemplifies RIT's commitment to excellence. We hope that you will discover the attraction of innovation, and the professional quality which sets RIT apart as a premiere technology focused university. We also trust that your experience here will be a transformational one.

For those of you who have already participated in our Pathways to RIT events, thank you for your continued engagement with RIT. Whether this is your first experience or not, you should be as proud of your accomplishments as we are.

Over the next few days, I encourage you to enjoy the outstanding workshops, panels, and networking events. I invite you to shine as brightly as you can through your presentations, and the opportunities you will have to collaborate and cultivate relationships with RIT faculty and other cohort members.

I look forward to personally meeting each of you.

Congratulations again,

Torrence E. Sparkman, Ph.D.

Assistant Provost and Assistant Vice President for Faculty Recruitment

Contents

Saunders College of Business

Jamel Catoe
Jessica Thornton, Ph.D.
Megan Trillo

Jamel Catoe

Ph.D. Candidate
University of North Carolina at Charlotte

Profile

Jamel Catoe is a native New Yorker and an interdisciplinary scholar pursuing his Ph.D. in organizational science at the University of North Carolina (UNC) at Charlotte. Grounded in a humanistic management perspective, his research is driven by a singular mission: to examine work today to design a future of work that works for workers. Specifically, his work investigates how emerging work modalities, such as Work from Anywhere, influence worker well-being, the work-life interface, and the flourishing of minoritized professionals.

As a rigorous qualitative researcher, Catoe utilizes in-depth interviews, scoping reviews, and autoethnography to capture the nuanced, lived experiences of modern workers. At UNC Charlotte, he has served as the instructor of record for courses across management, organizational behavior, sociology, and research methods, and as the assistant director for the Organizational Science Institute, a pipeline program broadening access to graduate education. His insights have been presented at leading national conferences, including the Academy of Management and the American Sociological Association.

Beyond academia, Catoe has nearly two decades of higher education administration leadership, including director-level roles, across universities in four states. He has more recently leveraged this extensive background as a strategic thought partner in the tech sector, having served in pivotal learning and development and DEI data analytics roles for Rocket Lawyer and Sick, a global tech manufacturing firm. Dedicated to community empowerment, he also serves as a board member for A.S.P.I.R.E., a non-profit helping individuals thrive in Greater Charlotte.

Catoe holds a BA in communication (University at Buffalo), an MS in higher education administration (Buffalo State), an MBA in management and marketing and an MA in communication (both from the University of Connecticut), and an MA in sociology (UNC Charlotte).

Abstract

An Exploration Of 'Work-From-Anywhere' As A Pathway To Enhanced Subjective Well-Being

Remote work is in exceptionally high demand among modern job seekers, with market data indicating that a substantial segment of the workforce aggressively pursues remote-only roles anticipating heightened autonomy. Yet, while organizational literature frequently links remote work to enhanced flexibility, empirical studies reveal a persistent tension: remote modalities can simultaneously blur work-life boundaries, escalate stress, and induce severe social and professional isolation. While standard remote work often comes with geographic parameters that limit where employees can live, Work-from-Anywhere (WFA)—or location-independent work—has fundamentally transformed the social organization of work. By decoupling geographic residence from workplace location, WFA offers a novel pathway to potentially minimize the negative externalities of remote work on worker well-being. Building on the concept of Thriving from Work (Peters et al., 2021; 2023), this study utilizes qualitative, in-depth interviews with Black Americans engaged in location-independent work to explore how WFA can enhance workers' subjective well-being. The findings reveal the specific conditions under which location-independent work enhances well-being and the varied pathways through which workers thrive. Ultimately, this research provides critical insights for management scholarship and practice, offering an empirical framework for designing humanistic, sustainable future-of-work strategies that optimize talent retention and champion workforce equity in an increasingly distributed global economy.

Jessica Thornton, Ph.D.

Visiting Assistant Professor
Indiana University

Profile

Jessica Thornton is a visiting assistant professor of accounting at Indiana University. She earned her Ph.D. in Accountancy from the University of Illinois Urbana-Champaign and holds both a BS in commerce and a MS in accounting from the University of Virginia. Prior to academia, she spent nearly five years with KPMG, where she worked in audit and participated in the firm's National Data and Analytics group, developing technology-enabled audit solutions.

Dr. Thornton's research examines how individuals evaluate and use financial information in technology-enabled decision environments. Drawing on theories from psychology and accounting, her work explores information credibility, investor protection, behavioral biases, financial literacy, and the implications of emerging technologies such as artificial intelligence for judgment and decision-making.

Outside of academia, Dr. Thornton enjoys traveling, hiking, and following sports.

Abstract

Learning by Watching? How Automated Copy Trading Impairs Investor Judgment and Price Discovery

Automated "copy trading" features on trading platforms increasingly allow retail investors to directly replicate the trades of more experienced investors, thus delegating both information processing and trade execution to an outside party. We conduct twelve experimental asset markets to causally examine how copy trading affects investors who trade at an informational disadvantage. Consistent with inhibited experiential learning, we find that, despite their informational disadvantage, copy traders incorporate public information signals significantly less into their asset valuations. They also express heightened confidence in their own ability to predict future asset values and engage in excessive trading. In consequence, markets featuring copy trading suffer from slower price discovery. Our study highlights that information processing is not merely a cognitive cost to avoid, as its delegation can impair both individual investor judgments and overall market quality.

MeganTrillo

Ph.D. Candidate
Duke University

Profile

Megan Trillo is a marketing Ph.D. candidate at Duke University's Fuqua School of Business. Her research examines how identity shapes consumer–brand relationships, exploring different ways brands can connect with, support, and target a diverse range of identities. This research forms two active and growing streams: stigmatized and vulnerable identities, and multiple-identity frameworks. Trillo's work demonstrates how identity influences consumer perceptions, evaluations, and behavior, and offers evidence-based guidance for how brands can navigate these dynamics responsibly and effectively. Her work has been recognized through accomplishments including the 2024 American Marketing Association's Valuing Diversity Award.

Prior to joining Duke, Trillo received her bachelor's degree from Cornell University, graduating Summa Cum Laude from the School of Hotel Administration. Following graduation, Trillo worked professionally within various sectors of the service industry, providing the opportunity to explore and learn about consumer behavior through hands-on experience and gain practical knowledge to guide her research.

Abstract

When Self-Expression Backfires: The Interpersonal Consequences of Product-Based Vulnerable Self-Disclosure

Consumers today increasingly seek to publicly signal, rather than conceal, "the sobering realities of life" they face. Movements like "loud budgeting," where consumers openly share financial constraints, and influencers' growing willingness to publicly disclose mental health struggles reflect a broader shift towards this kind of transparency. Brands have taken notice, designing products that support consumers' desire for public vulnerable self disclosure—the intentional act of sharing unobservable information that carries meaningful risk of social judgment, emotional harm, discrimination, or disadvantage if known by others. Consumers are embracing these products. Anti Social Social Club, for instance, regularly features phrases such as "Sad Boyz" and "Stressed and Depressed" across its streetwear lines, with such items frequently selling out shortly after release. Luxury brand Enfants Riches Déprimés—French for "Depressed Rich Kids"—sells apparel bearing statements like "The Well of Loneliness" and "High Risk," pieces that resell for upward of $10,000.

At first glance, the popularity of products that disclose vulnerable self-aspects seems counterintuitive. Research on interpersonal perception shows that revealing unfavorable identities is fraught, exposing individuals to uncertain social evaluations that can range from heightened rejection and discrimination to increased liking and support. Yet consumers must weigh these uncertain, potentially negative consequences against a fundamental need to express their true selves—including vulnerable self-aspects—alongside a growing recognition of brands and products as a meaningful medium for doing so. This tension between the drive to disclose vulnerable identities and the social risk that disclosure carries raises an important, underexplored question: Does the method through which a vulnerable self aspect is disclosed shape how observers evaluate the discloser?

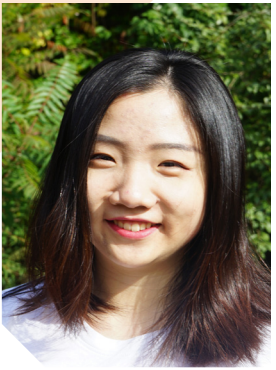
Across six studies, we examine whether the method of vulnerable self-disclosure—product-based versus verbal—shapes observer evaluations. We find that product-based disclosure elicits diminished respect relative to equivalent verbal disclosure, driven by a serial mediation process: product-based disclosure is perceived as less authentic, which in turn prompts inferences that the discloser lacks the motivation to genuinely confront and improve the disclosed trait, ultimately reducing respect. Critically, these effects emerge exclusively for vulnerable self-aspects and are attenuated in more private contexts. We further extend our findings beyond observer evaluations to behavioral outcomes, showing that when a discloser is affiliated with a business (e.g., a sales or serviceperson), perceptions of the discloser spill over to the business itself, shaping brand attitudes and patronage in a service context.

Golisano College of Computing and Information Sciences

Junhan “Judy” Kong

Yao Lyu, Ph.D.

Junhan “Judy” Kong



Ph.D. Candidate
University of Washington

Profile

Junhan “Judy” Kong is a Ph.D. candidate in the Information School at the University of Washington (UW). Her research is in human-computer interaction (HCI) with a focus on accessibility, interaction techniques, adaptive interfaces, AR/VR, and human-centered AI.

Kong is part of the Center for Research and Education on Accessible Technology and Experiences (CREATE), the Design, Use, Build (DUB) Group, and the Accessible Computing Experiences (ACE) Lab at UW, advised by Dr. Jacob O. Wobbrock. She received her bachelor’s and master’s degrees in computer science from Carnegie Mellon University with an additional major in HCI and minors in statistics and machine learning.

Kong’s work has been published at top-tier conferences including CHI, UIST, ASSETS, MobileHCI, and SUI. Her work has received the Best Paper Award from MobileHCI and a Best Paper Nomination from ASSETS. Her research is guided by a vision of computing systems that recognize and serve human diversity: technologies that understand and adapt to the varying situated abilities of their users, and infrastructures that empower designers and developers to create accessible and personalized interfaces.

Kong is actively engaged in academic service and teaching. She has served on the organizing committee of ASSETS as Student Volunteer Co-Chair and Web Co-Chair. She also developed and taught the UW course Special Topics in Informatics: Accessibility, receiving strong student evaluations and sustained interest in future offerings. She then led the initiative to establish the accessibility course as part of the undergraduate Informatics major curriculum at UW.

Abstract

Intelligent and Customizable Interfaces for Ability-Aware Accessibility

Most of today's interactive systems treat all users as the same, requiring users to adapt themselves to inaccessible systems. Yet human abilities are highly diverse, and effective and desirable adaptations can vary widely across individuals and situations. Even when personalization features exist, users are rarely empowered to meaningfully configure adaptive behaviors. Meanwhile, accessibility efforts often depend on individual initiative, with limited infrastructure to support designers and developers in creating ability-aware systems.

Junhan "Judy" Kong's research in human-computer interaction enables computing systems to understand and adapt to users' situated abilities, making interfaces accessible and personalized. In this presentation, Kong will discuss three pillars of my work towards this goal: (1) establishing quantitative understanding of human abilities, (2) creating human-AI systems with ability awareness, and (3) advancing infrastructure for design and development of accessible interfaces.

First, Kong develops quantitative measures that offer scientific and system-usable representations of users' abilities. Her work on touch interaction introduced target-agnostic metrics that characterize what happens during a touch from finger-down to finger-up, revealing patterns associated with limited fine motor function and specific motor challenges such as tremor. Kong has extended this approach to virtual reality, using gaze, head, hand, and finger movements to characterize 3D pointing performance and task load.

Second, Kong explores how human-AI systems can intelligently adapt to user abilities while preserving user agency. Her work on mobile reading while walking compares automatic and customized font size adaptations, showing how mixed-initiative systems can improve reading and offering insights into customization strategies while walking. Building on these insights, she developed a novel system that integrates gaze, hand, finger, head, and voice input, leverages large language models (LLMs) to guide customization, and allows people with upper-body motor impairments to create personalized virtual reality text entry methods that best suit their abilities.

Finally, Kong creates tools that make ability-aware interface development more efficient and scalable. Through the Ability-Based Design Mobile Toolkit (ABD-MT) and a design tool for accessibility inspections, my work simplifies development of mobile apps that can dynamically adapt to users' situated abilities at runtime, and scaffolds accessibility-driven prototyping in early-stage design ideation. Looking forward, she aims to further investigate ability awareness and user agency in today's human-AI interaction and extend these systems to broader usage scenarios and under-explored abilities.

Yao Lyu, Ph.D.

Postdoctoral Research Fellow
University of Michigan

Profile

Yao Lyu is a Postdoctoral Research Fellow at the University of Michigan School of Information. He received his Ph.D. in Informatics from The Pennsylvania State University. His research examines how marginalized communities engage with emerging technologies, with a particular focus on accessibility, artificial intelligence, online communities, and social media. Through qualitative and mixed-methods approaches, he studies how technology can be designed and governed to better support inclusion, participation, and community well-being.

He is looking forward to connecting with fellow participants and discussing the social impacts of AI and digital technologies.

Abstract

Beyond the Interface: Platform Infrastructure as an Accessibility Problem

Accessibility research has made significant progress at the interface layer, improving screen reader compatibility, caption quality, and assistive technology integration. But what happens when the problem is not just the interface? This talk argues that for people with disabilities who use AI-powered platforms, the deeper and more consequential barriers are infrastructural.

Drawing on infrastructure studies, Dr. Yao Lyu examines how AI platforms encode assumptions about normative users not in any single feature, but in the underlying logic of the system, the recommendation algorithms that define what "good" content looks like, the content moderation regimes that determine what gets amplified or removed, and the creator tool ecosystems built around sighted conventions of visual performance. These infrastructural choices are largely invisible to users they serve well, and consistently legible to those they exclude.

Dr. Lyu draws on a long-term ethnographic study of the BlindTok community, over 500 blind and visually impaired TikTok creators observed since 2022, alongside in-depth interviews with 60 participants. This research maps the gap between interface-level accessibility improvements and the persistent, platform-level barriers that remain even when individual features are technically compliant. It also documents the sophisticated collective strategies blind creators develop to navigate these barriers, a form of lived design expertise that Dr. Lyu argues should directly inform how platforms are governed and audited, not just how their interfaces are built.

Dr. Lyu extends this infrastructure lens to the NSF-funded ReDDDoT project, where participatory design work with East Detroit residents surfaces parallel dynamics in how AI systems are deployed in under-resourced community contexts.

The talk closes by proposing what an infrastructure-level accessibility agenda looks like, one that engages platform governance, algorithmic auditing, and policy design as accessibility problems, and treats disabled communities as primary stakeholders in those processes.

Kate Gleason College of Engineering

Emmanuella Ejichukwu

Emmanuella Ejichukwu

Ph.D. Candidate
University of Michigan-Dearborn

Profile

Emmanuella Ejichukwu is a Ph.D. candidate in Industrial and Systems Engineering at the University of Michigan-Dearborn. Her research focuses on applying industrial and systems engineering methods to understand, design, and improve human-AI systems in engineering education. Drawing on human factors, cognitive systems engineering, learning analytics, and engineering education research, she investigates how students interact with generative artificial intelligence during complex engineering problem-solving tasks.

Ejichukwu's dissertation examines how AI-assisted problem-solving influences engineering students' cognitive workload, learning processes, trust calibration, reliance, and technical performance. Her work uses mixed-methods and experimental approaches to characterize student-AI collaboration and develop empirically grounded models that support effective, responsible, and human-centered AI use.

She earned an MS in industrial and manufacturing systems engineering from the University of Michigan-Dearborn, graduating with high distinction, and a Bachelor of Engineering in industrial and production engineering from Nnamdi Azikiwe University. Her broader research interests include human factors engineering, manufacturing systems, process improvement, engineering design, and educational technology.

Ejichukwu has taught and supported several undergraduate engineering courses. At the University of Michigan-Dearborn, she taught first-year engineering design, MATLAB programming, and computational problem solving and has served as a lead graduate student instructor. Her teaching emphasizes active learning, systems thinking, structured problem-solving, and the integration of technical knowledge with authentic engineering applications. She strives to build students' confidence, strengthen their problem-solving abilities, and support the development of their professional identities as independent, reflective, and technically competent engineers.

As a future faculty member, Ejichukwu seeks to build an interdisciplinary research program focused on human-centered AI, engineering learning systems, and adaptive educational technologies that improve performance, long-term learning, and engineering skill development.

Abstract

Student-AI Collaboration in Engineering Education

Generative artificial intelligence in engineering education has changed the way engineering students approach programming, analysis, design, and technical problem-solving. While these tools can reduce task difficulty and improve immediate performance, possible cognitive offloading weakens independent reasoning and reduces the productive struggle needed for knowledge construction and long-term skill development. This tension presents a critical challenge for engineering education. Therefore, guided by cognitive load theory, Emmanuella Ejichukwu examines how first-year engineering students' use of generative AI influences cognitive load, problem-solving behavior, and learning outcomes in engineering education.

In this talk, Ejichukwu presents a synthesized review of evidence on generative AI and cognitive load in engineering education and identifies gaps. She will also show the results of a mixed-methods within-subjects study on cognitive load, problem-solving strategies, and performance during AI-assisted and unassisted tasks. The results of this study aim to inform the design of instructional strategies and AI-supported learning environments.

College of Engineering Technology

Gaurav Chobe, Ph.D.

Mohammad Naser, Ph.D.

Gaurav Chobe, Ph.D.

Postdoctoral Scholar
Purdue University

Profile

Dr. Gaurav Chobe earned his bachelor's and master's degrees in civil engineering from the Indian Institute of Technology (IIT) Hyderabad in 2019 and 2020, respectively. He received his Ph.D. in Civil Engineering from Purdue University in 2026, where he is currently working as a postdoctoral research assistant in the Lyles School of Civil and Construction Engineering. His work focuses on the safety, resiliency, and sustainability of new and existing infrastructure, including buildings and bridges. He uses large-scale experimental testing, numerical modeling, and mechanics-based assessment to understand how structures behave, fail, and can be rehabilitated. His research has addressed structural connections, seismic retrofit of existing structures, and sustainable cementitious materials. At Purdue University, he received the Excellence in Research Award and the John E. Goldberg Fellowship for outstanding research achievements.

He is an active member of the American Society of Civil Engineers, the American Concrete Institute, and the International Federation for Structural Concrete. Through these professional organizations, he contributes to the development and revision of technical documents, including design guidelines.

Alongside research, Dr. Chobe is committed to student-centered and practice-oriented teaching. He previously served as a Visiting Assistant Professor in India, where he taught undergraduate and graduate structural engineering courses. He has also designed and taught an introductory civil engineering course for high school students at Purdue University. In designing courses, he focuses on outcome-aligned assessments and active-learning approaches that improve student engagement and help students connect engineering concepts with real infrastructure challenges. His teaching has been recognized through the Estus H. and Vashti L. Magoon Award and a Teaching Fellowship.

Dr. Chobe is also actively engaged in mentoring and student development. At Purdue, he has mentored several Ph.D., master's, and undergraduate students in research activities. Through Purdue's GradTrack and Early Discovery mentorship programs, he has supported undergraduate students interested in pursuing graduate studies and research-intensive academic pathways.

Abstract

When Buildings Shake: Making Structural Connections Safer

Earthquakes cause an estimated $100 billion in economic losses every year worldwide and leave communities facing damaged buildings, disrupted lives, and long recovery periods. While the scale of these disasters is often described through collapsed buildings, structural failures can often be traced to weaknesses in how structural components are connected. Although a building consists of load-carrying members such as beams, columns, walls, and foundations, its overall safety and stability are largely governed by the connections that enable these members to act together as a system. When these connections do not perform as intended, local damage can compromise the entire structure.

Dr. Gaurav Chobe's research addresses such structural connections formed using steel anchors embedded in concrete, particularly when these connections are subjected to bending moments. Such anchorage-based connections are widely used to connect columns, equipment, bridge components, and retrofit systems to concrete members. During earthquakes, impact, or overload, bending causes one side of the connection to be pulled in tension while the other side presses against the concrete in compression. This compression can suppress cracking and improve anchor strength, but current design methods do not fully capture this beneficial effect.

To address this gap, Dr. Chobe combines large-scale experimental testing, nonlinear numerical modeling, and mechanics-based assessment. His work examines how anchor layout, embedment depth, baseplate compression, foundation geometry, and loading type influence connection behavior and brittle concrete-related failure modes. By combining physical tests with validated computer simulations, his research clarifies how these connections transfer forces, resist cracking, and ultimately fail.

This work advances anchorage design toward more reliable, behavior-based, and performance-oriented methods. Improved understanding of connection behavior can help engineers design safer and more efficient buildings, bridges, industrial facilities, and retrofit systems while reducing unnecessary material use and improving infrastructure resilience.

As his career progresses, Dr. Chobe aims to expand this research toward performance-based design of structural connections for resilient infrastructure, including seismic retrofitting, modular construction, critical facilities, and sustainable infrastructure systems.

Mohammad Naser, Ph.D.

Postdoctoral Researcher
Kennesaw State University

Profile

Dr. Mohammad Naser currently serves as a postdoctoral researcher in the Cyber-Physical Research Center (CYPHR) at Kennesaw State University, where he received his Ph.D. in interdisciplinary engineering with a concentration in biomedical and health systems, in 2025. His doctoral research focused on digital signal processing of physiological signals, and the use of machine learning to decode electroencephalography (EEG) signals for the development of assistive and rehabilitation technologies. Dr. Naser has also held technical leadership roles in multiple projects funded by the U.S. Army Research Laboratory, where he supervised students in developing multimodal fusion methods for human-AI teaming scenarios in time-critical environments.

Throughout his graduate training, Dr. Naser received several recognitions for research excellence, including being named the Outstanding Ph.D. Student in the College of Engineering and Engineering Technology at Kennesaw State University. He also earned distinctions at IEEE conferences in best paper and best presentation award categories, and his team was selected among the top projects in the 2023 National Data Analytics Competition organized by CSBS.

Dr. Naser holds a Bachelor of Science in Electrical Engineering from the University of Jordan and a master's degree from Wright State University, where his work focused on computational modeling and machine learning. His professional experience includes internships with a leading global audio signal processing company and a national laboratory, where he further developed his research expertise.

Abstract

BCI: Listening to the Data and Listening to the People — ALS as an Example

Brain-Computer Interfaces (BCIs) are systems that enable direct control of external devices through neural activity. In rehabilitation engineering, BCIs are primarily motivated by restoring or preserving access to everyday functions, including mobility, communication, and, more broadly, independence.

In this talk, Dr. Naser will discuss his research on BCIs for people with Amyotrophic Lateral Sclerosis (ALS), a progressive neuromuscular disease characterized by the degeneration of motor neurons and gradual loss of voluntary muscle control. For individuals with ALS, BCI systems decode neural signals and translate them into control commands for assistive devices, allowing preserved cognitive intent to drive physical action despite compromised motor pathways. The talk traces how this research evolved, starting from a focused engineering problem — reducing the labeled EEG training data needed to decode mental commands for wheelchair control — and following it as it expanded in unexpected directions. Direct engagement with the ALS community, combined with the questions and observations of students working in the lab, repeatedly surfaced angles the established literature had overlooked. That process of listening, to the data and to the people, gradually shifted the project's center of gravity toward fasciculations: the involuntary muscle twitches commonly observed in ALS.

Dr. Naser will describe how fasciculations turned out to matter on two fronts. On the technical side, they introduce artifacts that degrade EEG signal quality and, in turn, undermine BCI performance. On the clinical side, they carry real weight for people living with ALS: tied to symptom severity and disease progression, they also shape the diagnostic experience in ways the community often finds more pressing than the question of mobility itself. This clinical dimension has since become the primary focus of his ongoing work.

Dr. Naser will close by reflecting on the full arc of what this project taught him about physiological signal processing in medical tech applications — from IRB drafting and participant recruitment to the messiness of working with real data from real people — and on a broader lesson: that building technology which is truly usable cannot be separated from the human work of engaging the people it is built for and the people who help build it.

College of Health Sciences and Technology

Vera Borkowski, Ph.D., APRN, FNP-C

Vera Borkowski, Ph.D., APRN, FNP-C

Postdoctoral Scholar
University of Pittsburgh

Profile

Dr. Vera Borkowski is a postdoctoral scholar at the University of Pittsburgh School of Nursing, under their National Institute of Nursing Research T32: Technology Research in Chronic & Critical Illness (T32 NR008857). With prior funding from the National Association of Pediatric Nurse Practitioners and a Ruth L. Kirschstein Predoctoral Individual National Research Service Award (F31), Dr. Borkowski's program of research focuses on health informatics facilitating social risk screening in preventative care in school settings. In her dissertation, she described the information gathering behaviors for SDOH and asthma performed by school-based health providers for preventative asthma care. Also, using group concept mapping and hierarchical cluster analysis, Dr. Borkowski interviewed key stakeholders to elicit information about circumstances relevant to asthma exacerbations. She also developed and evaluated an informatics tool that provides asthma information with user-centered design, testing iterative prototypes, evaluating technical functionality and usability through interviews with school providers, who rated the tool as useful and usable.

Dr. Borkowski completed her F31 aims in approximately 2 years, progressing towards becoming an independent academic scientist and research faculty, able to provide real-life experiences in community health, with goals to instill her passion for research. In just over a year, Dr. Borkowski disseminated her dissertation findings in Pediatric Pulmonology, the Journal of School Nursing, and Computers, Informatics, Nursing. She has presented her work nationwide and internationally, at conferences for the National Association of Pediatric Nurse Practitioners, the National School-based Health Alliance, AMIA (formerly the American Medical Informatics Association), and the Sigma Theta Tau International Honor Society of Nursing's Research Congress.

Proud to be an alumnus of Penn State University (BSN 2004), Georgetown University (MSN, FNP 2015) and Vanderbilt University (PhD 2025), Dr. Borkowski's plans to contribute research and collaboration at the intersection of health informatics, nursing, medicine, and school-based community health.

Abstract

Title: Harnessing Community-level Data and Predictive Modeling for School-Based Asthma Care

School nurses and school-based health centers are at the front line for access to medical and mental health services for millions of children in the United States, providing quality care in schools. Awareness of social determinants of health (SDOH) information can empower providers to perform tailored social risk screenings, identify social needs, and offer more education and community referrals. While informatics tools are increasing to assist in SDOH data collection, access and usability of this data remains lacking in resource-limited settings such as schools and school-based health centers.

Dr. Vera Borkowski will share findings from her predoctoral and postdoctoral research, including qualitative findings of information gathering behaviors for SDOH data performed by school-based health providers for preventative asthma care. She will also share findings from her group concept mapping study which identified the most impactful social risk concepts feasible to address in school-based health care. Next, Dr. Borkowski will share her development of a dashboard prototype that provides SDOH information related to the management of asthma. Through human-centered design and design thinking methods, Dr. Borkowski will discuss how her team evaluated iterative prototypes of this resource through usability interviews. Finally, Dr. Borkowski will share her ongoing research during her postdoctoral fellowship at University of Pittsburgh, harnessing the National Institutes of Health's All of Us dataset in development of a predictive model for incorporation into her dashboard, expanding technical functionality and clinical usability.

Dr. Borkowski's long-term goal is to contribute knowledge about the effectiveness of interventions targeting SDOH on reducing health inequities and improving academic and health outcomes for youth. She will share her intended next steps for implementation of her dashboard and risk prediction in schools, as part of evidence-based practice to address health outcomes for school-age children, specifically with chronic conditions such as asthma. Ultimately, Dr. Borkowski encourages culture change that values mitigating harmful SDOH, reducing inequities, empowering school providers, children, and families, and advocating for policies that prioritize public health and systemically reduce barriers for school-age patients.

College of Liberal Arts

Eun Cheol Choi

Eun Cheol Choi

Ph.D. Candidate
University of Southern California

Profile

Eun Cheol Choi is a Ph.D. candidate in communication at the University of Southern California (USC), where he also earned an MS in computer science. A computational social scientist trained across communication and computing, Choi studies misinformation and social networks, with a particular focus on the social-scientific application and evaluation of AI systems.

His research spans two connected threads: how the structure of people's social networks shapes their belief in and sharing of misinformation, and how faithfully AI systems can reproduce human beliefs, attitudes, and social structure when used as proxies for human research participants. He has also built tools that help fact-checkers identify recurring misinformation using large language models. His work has appeared in the journal Social Networks and at venues including the International Conference on Machine Learning (ICML), the International AAAI Conference on Web and Social Media (ICWSM), and the ACM Web Conference.

Since 2022, Choi has been a research assistant at the USC Information Sciences Institute, contributing to DARPA- and NSF-supported projects across communication and computer science, and he has served as a teaching assistant for Data Science for Communication and Social Networks at USC. Before USC, he earned his MA and BA in communication from Seoul National University, where he worked at the SNU FactCheck Center, South Korea's largest fact-checking platform at the time.

Choi looks forward to meeting RIT's faculty and community and exchanging ideas about misinformation, social networks, and the responsible use of AI in social research.

Abstract

Proxies for People: Social Networks, Misinformation, and Simulated Respondents

Across disciplines, researchers increasingly use large language models (LLMs) as proxies for human judgments. Rather than claiming that AI proxies are simply beneficial or detrimental, Eun Cheol Choi's presentation asks what survives, and what quietly disappears, when a human subject is replaced by a simulated proxy ("silicon sample").

Building on research at the intersection of communication and computer science, Choi utilizes misinformation and social networks as a testing ground. Initial findings from a survey of U.S. adults indicate that susceptibility to misinformation is influenced by both individual attitudes and the structure of social networks. Subsequent analysis of LLMs prompted to simulate these respondents reveals that current models tend to overemphasize individual-level tendencies and have difficulty replicating the relational structures critical to human behavior. Simulations that appear accurate on the surface may, therefore, distort the relationships most relevant to researchers.

In response, Choi advocates a more rigorous evaluation standard. He proposes assessing AI-simulated responses across multiple dimensions of fidelity, following criteria social scientists use to disentangle complex relationships among cognition, behavior, and social context. The presentation also addresses ongoing efforts to enhance simulation accuracy and examines fairness challenges that emerge when models represent certain populations more faithfully than others.

This presentation offers both a cautionary perspective on using AI as a substitute for human participants and a constructive path forward, with significant implications for the responsible use of generative AI across the social sciences. Choi welcomes conversation with colleagues interested in communication, computing, and cognitive science.

College of Science

Rebecca Schmitt, Ph.D.

Rebecca Schmitt, Ph.D.

Postdoctoral Scholar
Cornell University

Profile

Dr. Rebecca R. Schmitt is a postdoctoral associate at Cornell University whose research seeks to understand and therapeutically harness the mechanisms that govern cellular plasticity in CNS diseases. Their current work examines how glioblastoma cells integrate microenvironmental cues to regulate cell-state transitions that drive tumor progression, therapeutic resistance, and disease recurrence. Through mechanistic studies coupled with human glioblastoma organoid models, they aim to characterize a newly discovered signaling node that may serve as a target to disrupt maladaptive cell-state programs.

A Western New York native, Dr. Schmitt earned both their BS in chemistry in 2017 and their Ph.D. in Medicinal Chemistry in 2022 from the University at Buffalo. There, they developed nanoparticle systems for targeted drug delivery in CNS diseases, including glioblastoma and traumatic brain injury. These experiences established a foundation in nanomedicine and inspired an interest in the biological mechanisms underlying CNS disease.

Dr. Schmitt plans to establish an independent multidisciplinary research program that integrates mechanistic biology and nanomedicine to address glioblastoma, neurodegeneration, and related CNS diseases. By examining how signaling networks that drive cellular plasticity shift across disease and microenvironmental contexts, they aim to identify molecular vulnerabilities that influence disease progression. These mechanistic insights will inform the design of modular nanoparticle systems for the targeted delivery of therapeutics that selectively modulate these pathways. Through this integrated approach, Dr. Schmitt strives to develop next-generation therapies that preserve normal CNS function while promoting beneficial cellular responses.

As a first-generation academic, Dr. Schmitt is passionate about creating opportunities for students from a wide range of backgrounds. They value collaboration and have been recognized for their commitment to interdisciplinary engagement through Cornell's Kristy Richards Scholar Exchange Award. Beyond the laboratory, Dr. Schmitt is dedicated to fostering a culture of curiosity, respect, and belonging within higher education through inclusive mentoring and community building.

Abstract

Mechanisms of Adaptive Cellular Plasticity in Glioblastoma

Glioblastoma is the most aggressive form of brain cancer in adults and remains incurable, with most patients surviving only 14.6 months after diagnosis. Glioblastoma stem cells (GSCs) are major contributors to this poor prognosis, exploiting cellular plasticity to dynamically adapt to changing microenvironmental and therapeutic pressures. By integrating local signals and transitioning between distinct cellular states, GSCs optimize tumor growth, survival, and treatment resistance while retaining the capacity for long-term self-renewal. These adaptive behaviors enable tumors to persist under adverse conditions and recur following treatment, motivating efforts to identify the signaling mechanisms that govern GSC plasticity.

We recently identified a unique stress-responsive pro-survival signaling complex, DockTOR, that may enable GSCs to maintain stem-like properties during microenvironmental stress. DockTOR is assembled by Cdc42 and Dock7, which serves as a scaffold for Akt, mTOR, and several mTOR regulatory proteins. By protecting Akt from dephosphorylation during microenvironmental stress, DockTOR sustains Akt and mTOR signaling under conditions that would normally inactivate these proteins. As a result, DockTOR promotes the expression of the stemness-associated transcription factor SOX2 and supports stress-induced self-renewal in patient-derived GSCs. Collectively, this work positions DockTOR as a potential signaling node linking microenvironmental stress to the stem-like cellular programs that drive glioblastoma progression.

Building on these findings, I hypothesize that DockTOR enables GSCs to adapt to microenvironmental stress by promoting transitions into more aggressive, treatment-resistant cellular states. To investigate this, I am leveraging a clinically relevant Glioblastoma Cerebral Organoid (GLICO) model enriched with patient-derived GSCs that recapitulates the cellular heterogeneity and microenvironmental niches found in human tumors. By combining organoid-based modeling with molecular and transcriptional analyses, I aim to determine how DockTOR signaling influences cell-state composition and plasticity under stress. These studies will reveal how disruption of DockTOR-mediated signaling impacts the stress-induced cellular adaptations that fuel treatment resistance and disease recurrence.

The identification of DockTOR also creates opportunities for therapeutic intervention. Guided by recently obtained structural insights into the Dock7-Cdc42 interface that drives DockTOR assembly, we are pursuing the discovery of compounds capable of disrupting this signaling complex through structure-based virtual screening approaches. As an independent investigator, I aim to integrate these mechanistic discoveries with nanomedicine-based approaches, developing modular nanoparticle platforms for the targeted delivery of small molecules or RNA therapeutics directed against plasticity-promoting signaling nodes. By combining mechanistic biology with targeted drug delivery, this research provides a foundation for selectively modulating disease-associated cell states in glioblastoma and, ultimately, other CNS diseases.

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