



Chair's Message

As we wrap up the 2024–2025 academic year, I'm proud to share several exciting developments and accomplishments from the Computer Science and Engineering Department.

This year, our department continued its upward momentum in both enrollment and research activity. Undergraduate enrollment in the BS CSE and BA CS programs reached 716 students in Fall 2024, representing an 87% increase compared to Fall 2019 (383 students). On the research front, CSE faculty secured nearly \$3 million in research expenditures in FY24—a new record that reflects our growing and dynamic research enterprise. Our faculty are also publishing increasingly in top-tier conferences and journals across a wide range of computer science and engineering fields.

As more BA CS students complete their degrees, we've seen a growing number of industry-sponsored capstone design projects. This spring, seniors collaborated with professionals and mentors from companies like Google, Apple, and others to tackle real-world computing challenges. For example, one BA CS team developed a multimodal, bidirectional streaming translation app using Flutter and Google's Gemini API. They have been invited to attend Google I/O 2025 in Mountain View, CA, where they will engage directly with Google's engineering teams. I was also excited to see many other high-quality BA CS and BS CSE capstone design projects showcased in EDIS in Spring 2025.

CSE students continue to excel both academically and in extracurricular arenas. In Spring 2025, a team from our Cyber Defense student group competed in the National Cyber League (NCL) and achieved outstanding national results. Collin Dewey (MS CS) placed 3rd, and Alvin Tran (MEng CSE) placed 9th out of 604 experienced players nationwide. In the standard bracket with over 8,500 players, BA CS student Steven Alexander ranked in the top 1%, and MS CS student Cindy Truong placed in the top 5%. Go CARDS!

Dr. Wei Zhang

Professor and Chair
Computer Science and Engineering

Harnessing Social Media for Disaster Resilience: Dr. Nguyen's NSF Award

Innovating Emergency Response with Data-Driven Insights

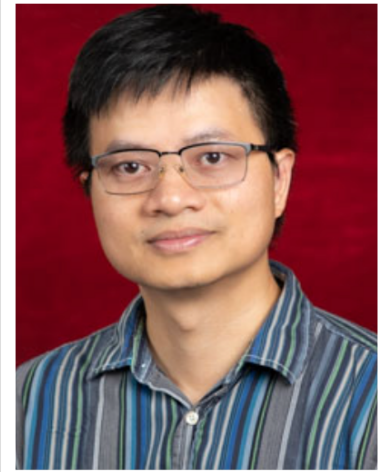
The Department of Computer Science and Engineering proudly congratulates Dr. Nguyen and his outstanding team on earning a prestigious NSF award under the American Rescue Plan Act of 2021. This honor, supported by a \$58,865 subcontract for their project “**Event Detection and Knowledge Extraction via Learning and Causality Analysis for Resilience Emergency Response**,” celebrates their pioneering use of social media to bolster disaster preparedness and community resilience. This research is a collaborative effort between the University of Louisville, Meharry Medical College, and Missouri University of Science and Technology, showcasing interdisciplinary excellence.

From Dr. Nguyen's **TING Lab** (Text, Interpretation, Network, and Generative AI Lab), the team leverages social media to detect events and deliver timely, actionable insights to authorities. By analyzing posts, images, sentiments,

and context, they ensure trustworthiness while exploring spatial-temporal and cross-domain event dynamics. Running March 1 to December 31, 2025, this initiative promises real-time disaster tracking and predictive mitigation—potentially transforming emergency response.

The project fuses graph neural networks, transfer learning, and deep learning to create adaptive algorithms attuned to community needs and socio-economic impacts. It advances in three key areas: extracting local and global events, embedding contextual trust, and uncovering event relationships for deeper insights. Validated by NSF's rigorous standards, this investment highlights its potential to redefine disaster management. Findings will be shared via publications, code, and datasets, inviting collaboration—especially with TING Lab's innovative team.

Educationally, the project equips students with resources in deep learning,



Dr. Long Nguyen

spatio-temporal analysis, and resilience strategies, while opening research pathways for underrepresented students to pursue advanced degrees in computer science, fostering diversity in the field.

This award boosts CSE's research stature and ignites new partnerships. Dr. Nguyen and his TING Lab team exemplify our mission—blending cutting-edge technology with societal impact. Join us in celebrating this milestone, a beacon of progress and hope. Here's to a future where technology, led by efforts like this, saves lives!

How Generative AI Transforms Learning for Enterprise-Level Coding

BY NATHAN RUSSELL

The key to learning the object-oriented paradigm goes beyond simply learning a language. It involves understanding enterprise-level frameworks. These systems encompass millions of code lines, span hundreds of repositories, and are maintained by thousands of developers.

Generative AI tools offer a valuable mechanism for students to get up to speed with modular parts of projects. Modular development demands skill and style to ensure components are understandable, scalable, and usable in a massive codebase.

Traditional grading for programming often constrains instructors to simplistic examples, easily solved by generative AI. Students aren't limited by office hours or in-person visits. With IDE extensions like GitHub Copilot, they get 24/7 assistance through "explain this," helping them grasp complex code at their own pace. They can progress steadily, avoiding overwhelming stalls that last hours or days. AI allows educators to provide large, complex starter code, simulating real-world conditions.

Enterprise-level development frequently relies on lambda expressions and generic/template classes, not procedural code. Grading complex student projects was traditionally a challenge for educators. Generative AI enables hundreds of unit tests, integrating with tools like Maven for automated grading.

```
List<String> processedTriangles = triangles.stream()
    .filter(triangle -> !(triangle instanceof EquilateralTriangle))
    .sorted(Comparator.comparingDouble((Triangle t) -> t.area)
        .thenComparingDouble(t -> t.perimeter))
    .map(triangle -> String.format("Area: %.2f, Perimeter: %.2f",
        triangle -> triangle.contains("Area: 50.00") ? "High Area" : "Low Area",
        triangle -> triangle.contains("Area: 50.00") ? "High Perimeter" : "Low Perimeter"))
    .collect(Collectors.groupingBy(
        Collectors.joining( delimiter: " " )
    ))
    .values().stream()
    .reduce((a, b) ->
        .map(List::of)
        .orElse(List.of()))
```

What do the arrows do? What is the purpose of map, reduce, and collectors?

```
.filter(triangle -> !(triangle instanceof EquilateralTriangle))
.sorted(Comparator.comparingDouble((Triangle t) -> t.area)
    .thenComparingDouble(t -> t.perimeter))
.map(triangle -> String.format("Area: %.2f, Perimeter: %.2f",
    triangle -> triangle.contains("Area: 50.00") ? "High Area" : "Low Area",
    triangle -> triangle.contains("Area: 50.00") ? "High Perimeter" : "Low Perimeter"))
```

The arrows (→) in the code represent lambda expressions in Java (functions without a name) in a concise way. For example:

```
triangle -> !(triangle instanceof EquilateralTriangle)
```

This is a lambda expression that takes a `triangle` as input and returns a `boolean`.

Purpose of map, reduce, and Collectors:

- map:
 - Transforms each element in a stream into another form.

Most importantly, autograders provide immediate feedback via

GitHub workflows. Some tests include linting rules, enforcing consistent, professional code styling. Many aspects of modern development can be learned in parallel from day one.

My latest assignment required students to create a generic matrix class, supporting types like `Matrix<Matrix<Matrix<Polynomial<ZmodN>>>` (a matrix of matrices of matrices with polynomial elements modulo N). There is no limit to the depth and the unit tests will check many layers deep. The starter driver code was extremely complex and only the signature for the matrix class was provided. Generative AI could not produce code that satisfied all 200 unit tests. However, interacting with generative AI allowed 90% of the students to create a generic class that passed all 200 unit tests. Most students ran the unit tests over 30 times with gradual improvement with each iteration. Several students have sent emails claiming they are proud of the recursive complexity of what they accomplished.

There's no demand for people who just program. The demand is for developers skilled in enterprise-level modular code. That used to take 10+ years to master. We must embrace generative AI.

Industry Engagement in Capstone Class: Bridging Academia and Practice

As part of the BACS capstone class, I organized an industry engagement initiative to provide students with valuable exposure to real-world professional environments. This was accomplished by arranging sessions where students could meet and interact with industry professionals. The primary goal was to bridge the gap between theoretical knowledge acquired in the classroom and practical applications in the workplace. By engaging directly with industry professionals, students gained insights into current trends, industry standards, real-world challenges, and expectations from future employees.

These sessions included guest lectures, interactive Q&A panels, and informal networking opportunities. Students could ask questions, receive feedback on their project ideas, and understand how their academic work aligns with industry needs. Professionals shared their career journeys and offered valuable advice on transitioning from academia

to industry. This engagement significantly enriched the students' learning experience, making their capstone projects more relevant, practical, and impactful.

In addition to boosting technical understanding, these interactions helped students improve soft skills such as communication, teamwork, and professional etiquette. Some students even secured internships, jobs, and mentorship opportunities as a direct result of these sessions. Overall, this initiative added immense value to the course by enhancing students' career readiness, increasing motivation, and giving them a clearer understanding of the expectations they will face in their chosen fields. It also fostered stronger connections between the academic program and the industry, paving the way for future collaborations.

— By Sai Betgeri

CyberCorps SFS Program Bolsters Kentucky's Cybersecurity Future

Kentucky's first CyberCorps Scholarship for Service (SFS), led by Dr. Wei Zhang at UofL, welcomed its second cohort of five students in Fall 2024, following eight pioneers. Backed by a \$3.4 million NSF grant, with \$2.2 million for UofL, SFS scholars receive full tuition and stipends while pursuing cybersecurity degrees for federal roles.

Dr. Zhang hosted CISA's Vincent Sritapan and Wendell Jose at UofL's Duthie Center, joined by faculty Drs. Adel Elmaghraby and Adrian Lauf.



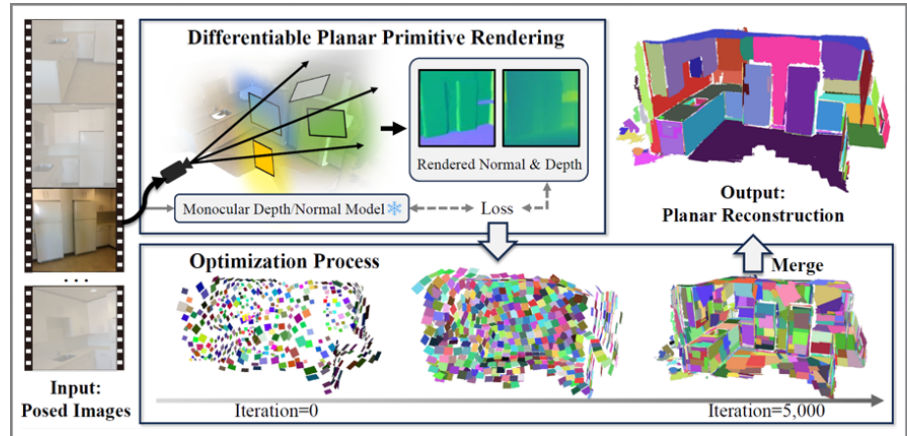
Students gained insights into federal cybersecurity careers.

SFS students shone in the National Cyber League, helping UofL rank top 16 in the 2024 Cyber Skyline Power Ratings. The program plans to expand, fortifying national cybersecurity. Learn more at the [CyberCorps Scholarship for Service website](#).

Dr. Rui Yu's Pioneering 3D Reconstruction and Assistive AI at CVPR 2025 and CHI 2025

Dr. Rui Yu, Assistant Professor in the Department of Computer Science and Engineering, is making significant contributions across computer vision and human-centered AI, with three groundbreaking papers accepted to two of the field's most prestigious conferences: the IEEE/CVF Computer Vision and Pattern Recognition Conference (CVPR 2025) in Nashville and the ACM CHI Conference on Human Factors in Computing Systems (CHI 2025) in Yokohama.

At CVPR, the top conference for computer vision, Dr. Yu addresses the fundamental challenge of 3D plane reconstruction from images, crucial for applications like robotics and augmented reality. His first paper introduces “**ZeroPlane**”, a cutting-edge framework that enables robust 3D plane understanding from single images in diverse, real-world (“in-the-wild”) scenes. By developing a new large-scale benchmark and innovative model design, ZeroPlane overcomes longstanding limitations in the field. His second CVPR paper presents “**PlanarSplatting**”, an ultra-fast method for indoor



“PlanarSplatting” method published in CVPR 2025

surface reconstruction from multiple views. Achieving high geometric accuracy in just three minutes, PlanarSplatting directly optimizes 3D planes, surpassing previous techniques in both speed and detail. Dr. Yu will make the code for both projects publicly available, fostering further innovation in the community.

At CHI, the premier conference for human-computer interaction, Dr. Yu shifts focus to improving AI for people with visual impairments (PVI). His research examines how PVI use Large Multimodal Models (LMMs) via smartphones, drawing insights from user interviews and interaction analysis. The study uncovers key shortcomings in current AI systems, including

misinterpretation of social cues and user intentions. Based on these findings, Dr. Yu proposes actionable design strategies to create more interactive, personalized, and effective assistive technologies, ensuring AI better serves human needs.

Dr. Yu's work exemplifies the intersection of technical excellence and societal impact, pushing the boundaries of AI's perceptual capabilities while prioritizing accessibility and inclusion. His contributions underscore the Department of Computer Science and Engineering's commitment to pioneering research shaping the future of technology. For more details on Dr. Yu's groundbreaking projects, [visit his lab website](#).

Dr. Minghong Fang's CVPR 2025 Research Enhances Federated Learning Security for Healthcare, Finance, and Autonomous Systems

In a significant advancement for machine learning, Dr. Minghong Fang, tenure-track assistant professor in Computer Science and Engineering at the University of Louisville, has co-authored a groundbreaking paper accepted to the 2025 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), one of the premier venues in the field. Titled “Model Poisoning Attacks to Federated Learning via Multi-Round Consistency,” the paper addresses critical security vulnerabilities in Federated Learning (FL) systems, which train AI models across distributed devices while preserving data privacy.

Federated Learning allows multiple clients, such as smartphones or hospitals, to collaboratively train a shared model without sharing their raw data. However, this distributed approach is susceptible to model poisoning attacks, where malicious actors manipulate the training process to compromise the model's performance. Dr. Fang and his co-authors identified a

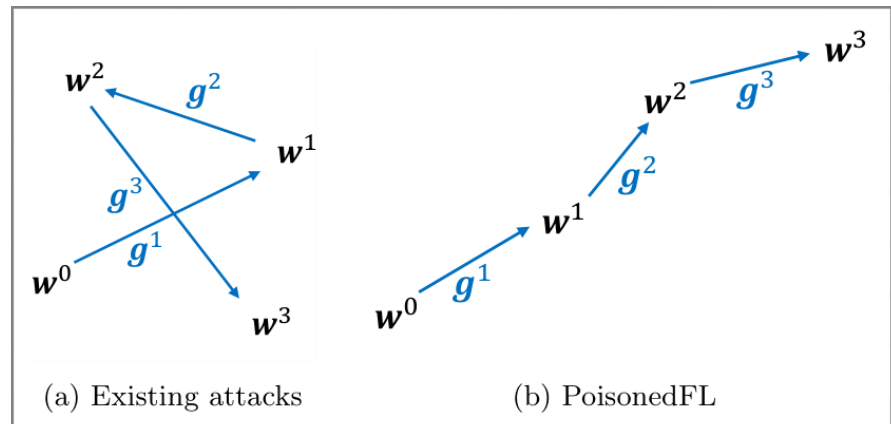


Illustration of global-model evolution in three training rounds under attacks and PoisonedFL

key limitation in existing attack methods: their effectiveness diminishes when defenses are applied, and they often require privileged access to genuine clients' data or model updates. Additionally, most attacks focus on a single training round, leading to conflicting updates that cancel out over time.

To overcome these challenges, the research team developed PoisonedFL, a novel model poisoning attack that enforces consistency across multiple rounds of malicious updates. Remarkably, this method operates without any access to honest clients' information, making it more practical and potent. Experimental results demonstrate that FL systems are significantly more

vulnerable to such attacks than previously understood, highlighting the urgent need for robust defense mechanisms.

Dr. Fang's work highlights vulnerabilities in FL and sets the stage for more secure and resilient machine learning systems. As AI transforms fields like healthcare, finance, and autonomous technologies, this research is vital for ensuring the integrity of distributed learning.

Dr. Fang joined the CSE Department at UofL in Fall 2024 after completing his postdoctoral training at Duke University. His research contributions further strengthen the department's commitment to excellence and impactful research on a global scale.

Dr. Olfa Nasraoui Excels in Service, Research, and Mentorship

Dr. Olfa Nasraoui, a powerhouse in the Computer Science and Engineering Department, continues to elevate the University of Louisville (UofL) through her exceptional service, groundbreaking research, and dedicated mentorship. Her 2025 achievements highlight her as a leader in artificial intelligence and data science.

Presidential Excellence Award for Distinguished Service

Dr. Nasraoui was honored with the 2025 Presidential Excellence Award for Distinguished Faculty Service to UofL, recognizing her tireless contributions to the university's mission. Her leadership and commitment have strengthened academic programs and fostered a collaborative environment at UofL.

Mentoring the Next Generation

Under Dr. Nasraoui's guidance, her Ph.D. student Çağla Acun successfully defended her dissertation and graduated in 2025. This milestone reflects Dr. Nasraoui's dedication to nurturing researchers, ensuring her lab remains a hub for cutting-edge discoveries.

Pioneering AI Research with NSF Grants

Dr. Nasraoui is the Principal Investigator (PI) on a new NSF planning grant, "Investigations in Foundational Models for Recommendation with Applications to Complex Domains." This project positions her at the forefront of advancing recommendation systems using foundational AI models. Additionally, she is a key collaborator on one of seven projects within the \$20 million NSF EPSCoR RII Track-1



Dr. Nasraoui accepts the 2025 Presidential Excellence Award

award, "Climate Resilience through Multidisciplinary Big Data Learning, Prediction & Building Response Systems (CLIMBS)." In Project 7, Dr. Nasraoui integrates artificial intelligence for adaptive emergency management, risk assessment, and disaster detection, working alongside over 50 researchers from eight Kentucky institutions, including UofL, to enhance the state's climate resilience.

ACM Distinguished Speaker

Dr. Nasraoui's expertise earned her the prestigious title of ACM Distinguished Speaker, recognizing her as a global thought leader in AI and data science. This role amplifies her ability to inspire and educate audiences worldwide on the transformative potential of these fields.

Dr. Nasraoui's remarkable contributions in service, research, and mentorship continue to shape UofL's reputation as a leader in AI and data science, inspiring students and colleagues alike.

Dr. Roman Yampolskiy Explores AI's Ethical Frontier in New Book

Decoding Risks, Ethics, and Innovation in Considerations on the AI Endgame

In the ever-evolving world of artificial intelligence, Dr. Roman Yampolskiy, a tenured professor in our Computer Science and Engineering Department, continues to lead the charge in addressing AI's profound societal implications. His latest co-authored book, ***Considerations on the AI Endgame: Ethics, Risks and Computational Frameworks***, written with Dr. Soenke Ziesche, offers a groundbreaking interdisciplinary dive into the ethical and technical challenges of AI's rapid advancement.

As a founder of AI safety and director of the Cyber

Security Lab, Dr. Yampolskiy brings his expertise to this seminal work, which spans topics from AI welfare policies to the mathematics of machine intelligence. The book tackles pressing issues like preserving personal identity in technological contexts, the elusive problem of AI identity, and the critical need for universal AI ethics that blend Western and non-Western perspectives. Innovative concepts, such as applying "ikigai" (a Japanese philosophy of purpose) to AI ethics and formalizing design through "Designometry," provide fresh frameworks for navigating AI's future.

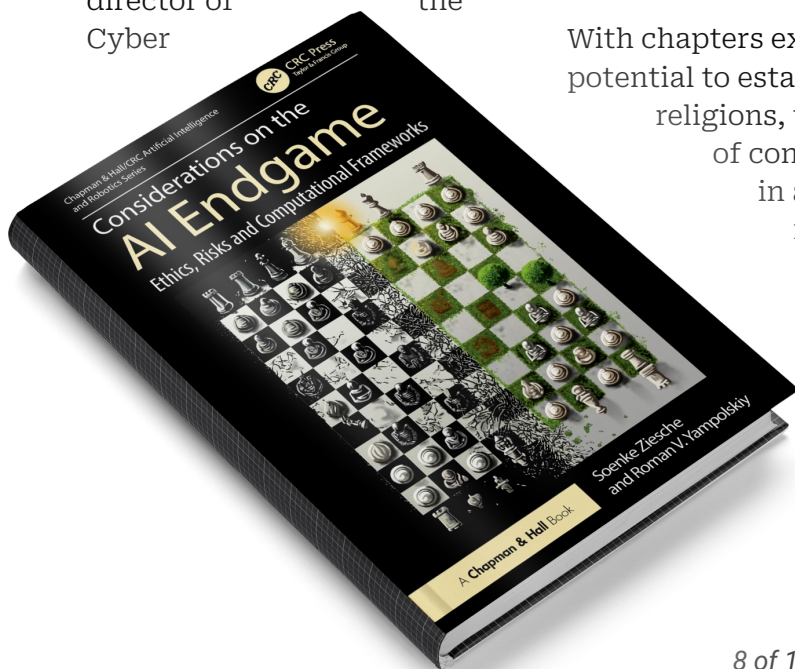
With chapters exploring AI's potential to establish religions, the neglect of consciousness in alignment research, and synergies between AI ethics and the UN



Dr. Roman Yampolskiy

Sustainable Development Goals, this volume is both visionary and practical. It serves as an essential resource for researchers, policymakers, and anyone curious about AI's impact on humanity.

Dr. Yampolskiy's work, recognized with the 2019 Kentucky Academy of Science Excellence Award and featured in outlets like BBC and New Scientist, solidifies his role as a global thought leader. Join us in celebrating his latest contribution to shaping a safer, more ethical AI landscape!



Dr. Sabur Baidya Drives Innovation in Cybersecurity, AI, and Robotics Research

Dr. Baidya, a standout faculty member in the Computer Science and Engineering (CSE) Department, is making waves in 2025 with his cutting-edge research and mentorship. Leading his students to national recognition, Dr. Baidya is shaping the future of cybersecurity, AI, and pervasive computing.

Leading the Charge in 5G and Beyond

Dr. Baidya and his research students, Narges Golmohammadi (Ph.D.) and Raju Garuda (MS), earned a coveted spot as one of 20 teams nationwide in the U.S. Air Force Research Laboratory's 2025 5G and Beyond Software-Defined Radio (SDR) University Challenge. Narges also secured the "Young Gladiators 2024" scholarship, including full NSF travel support for a three-day master class on the Colosseum wireless channel emulator at Northeastern University. Meanwhile, Raju received an NSF travel award to attend the Open AI Cellular (OAIC) Workshop at Mississippi State University.

Breakthroughs in Pervasive Computing

Under Dr. Baidya's guidance, Ph.D. student Mohammad Helal Uddin received a prestigious NSF travel grant to present their groundbreaking paper, "Predicting Human Depression with Hybrid Data Acquisition Utilizing Physical Activity Sensing and Social Media Feeds," at the TRUSTSENSE workshop during the 23rd IEEE International Conference on Pervasive Computing and Communications (PerCom 2025) in March.

Empowering Undergraduate Research

Dr. Baidya's mentorship extends to undergraduate students, with NSF REU 2024 student Liam Seymour publishing a first-author paper, "Large Language Models on Small Resource-Constrained Systems: Performance Characterization, Analysis and Trade-offs," at IEEE SoutheastCon 2025 in Charlotte, NC. This remarkable achievement highlights Dr. Baidya's commitment to fostering young talent.



Dr. Sabur Baidya

Shaping the Future of Robotics and AI

Adding to his accolades, Dr. Baidya was appointed chief guest editor for a special issue of Frontiers in Robotics and AI on "Robotic Perception and Control in the Era of Generative AI and Reinforcement Learning." His leadership in this domain underscores his influence in advancing robotic technologies.

Dr. Baidya's dynamic mentorship and innovative research continue to elevate the CSE Department, inspiring students and driving impactful contributions to technology and society.

Christopher Jones Thrives in CyberCorps SFS Program



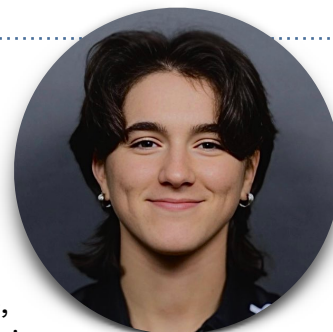
Hi, I'm Christopher Jones, a graduate student pursuing my Master's in Computer Science at UofL's J.B. Speed School. In

Spring 2024, I earned my Bachelor's in Computer Science, discovering my passion for technology despite not excelling in math or science growing up. Through undergrad research, projects, and three co-op rotations at The Lubrizol Corporation, I honed skills in data engineering, back-end coding, website design, and soft skills like presenting ideas to teams.

My interest in cybersecurity sparked during co-op training on protecting company and personal data. Unsure how to pivot from coding, I found the CyberCorps Scholarship for Service program through Dr. Wei Zhang in my senior year. Joining was a game-changer—I've gained extensive cybersecurity knowledge, built friendships in my cohort, and received mentorship from SFS alumni. I highly recommend this program to anyone passionate about cybersecurity! I'm on track to complete my Master's in Fall 2025 and launch a career in the field.

CSE Outstanding Undergraduate Award: Alba Cuns Iglesias

Alba Cuns Iglesias, a University of Louisville undergraduate, received the CSE Outstanding Undergraduate Award for excellence in Computer Science and Engineering. Originally from Spain and a Track and Field athlete, she balances athletics with her passion for AI and data science, sparked by her Python and Data Analytics course.



This summer, Alba will join Oasis Technologies Group as an AI Software Developer. After graduation, she plans to pursue a Master's in Business Analytics, focusing on AI.

Outside academics, Alba enjoys cooking, photography—capturing her sport—and outdoor activities. She values time with friends and family or unwinding with TV shows.

Congratulations to Alba for her deserved recognition and promising AI career.

BACS Outstanding Undergraduate Award: Mackenzie Cornish

Mackenzie Cornish, a senior BACS student at the University of Louisville, received the BACS Outstanding Undergraduate Award for academic and extracurricular excellence. A Mathematics minor and Dean's Scholar, she engages in the Asian Pacific Student Union and Phi Sigma Rho, passionate about AI, deep learning, and digital forensics.



Mackenzie aims for a career in machine learning or digital forensics, planning to work full-time post-graduation and later pursue a Master's degree.

Outside academics, she loves music festivals, concerts, and enjoyed photographing game sprites for a Game Design project.

Congratulations to Mackenzie for her deserved recognition.

Narges Golmohammadi Named Finalist for 2025 GTA Excellence in Teaching Award



Narges Golmohammadi, Ph.D. candidate in Computer Science has been

selected as a finalist for the 2025 Graduate School's GTA Excellence in Teaching Award, an honor organized by the Speed School of Engineering to recognize outstanding contributions by Graduate Teaching Assistants. This prestigious recognition reflects her exceptional dedication to delivering high-quality instruction and her unwavering commitment to student learning and academic success. Narges Golmohammadi has consistently demonstrated excellence in the classroom through her clear communication, innovative teaching strategies, and ability to create an inclusive and supportive learning environment. Also, being named a finalist is a testament to her impactful role in enriching the educational experience at the Speed School of Engineering. This recognition not only celebrates her achievements but also highlights the importance of dedicated and effective teaching.

CSE Doctoral Award: Mohammad Helal Uddin



Mohammad Helal Uddin, a Ph.D. candidate in Computer Science and Engineering, received the CSE Doctoral Award for his innovative neural network optimization research. His work enhances deep learning efficiency for AI applications in drones, robots, and autonomous vehicles. A notable achievement includes developing a Hessian-vector approximation method, improving pruning efficiency while maintaining accuracy.

Mohammad aspires to become a research scientist, advancing AI optimization for industry, and later a professor to mentor future AI innovators. Outside academics, he builds F1Tenth autonomous racing cars, plays cricket, and experiments with cooking.

Congratulations to Mohammad for his well-deserved recognition and contributions to AI innovation.

CSE Master of Science Award: Clifford Charbonneau



Clifford Charbonneau, a Master's student in Computer Science, received the CSE Master of Science Award for exceptional backend development and applied machine learning. Known for problem-solving, he crafts solutions to complex challenges.

His Digital Image Processing course, exploring image representation and machine learning's pattern-detection, shaped his perspective. Clifford aims to advance as a software engineer and launch a language-learning startup to connect cultures.

In his free time, he reads Harry Potter in Japanese, which he studied for years, and enjoys bouldering to challenge mind and body.

Congratulations to Clifford for his deserved recognition and innovative vision.



Dr. Bin Xie Named 2024 AAEOY Executive of the Year

University of Louisville Alumnus Honored for Leadership in AI-Driven Solutions

Dr. Bin Xie, graduated from the University of Louisville, has been named the 2024 [Asian American Engineer of the Year \(AAEOY\) Executive of the Year](#), a prestigious recognition honoring his extraordinary contributions in computer engineering. This accolade highlights Dr. Xie's visionary leadership and the transformative advancements he has driven in both national defense and commercial markets. His work has significantly shaped the future of technological solutions, making him a leading figure in the global technology landscape.

Dr. Xie attributes much of his success to the solid foundation he built at the

University of Louisville. He earned his Ph.D. in Computer Science & Computer Engineering in 2006 from the Speed School of Engineering. Reflecting on his time at the university, Dr. Xie has said,

“The University of Louisville provided me with a dynamic academic environment that fostered curiosity, creativity, and collaboration.”

In 2021, he was honored with the Alumni Professional Award for Computer Science & Engineering, reflecting his remarkable contributions to the field. Dr. Xie said:

“My experiences there, from working with esteemed professors to engaging in innovative projects, played a crucial role in shaping my passion for solving Computer Engineering challenges.”

Dr. Xie is the founder and CEO of [InfoBeyond Technology](#). He is proud of continuous R&D collaborations in the past

with professors at the University of Louisville.

Under his leadership, the company has become a pioneer in AI-driven solutions that enhance cybersecurity, streamline communication, and improve operational efficiency, serving customers like Sun Pharmaceuticals, Canadian Elite Basketball League, Genvivo, Chicago Housing Authority. The company also serves a range of government clients, including the Department of Defense, NIST, and the Department of Energy, providing cutting-edge solutions that address critical defense and energy sector needs.

Dr. Xie's achievements acknowledge that the skills and mindset nurtured at the University of Louisville were crucial to his success, highlighting the significance of the foundation laid during his academic career in the school.