# OU Computer Science Newsletter

March 2025



# HERE'S WHAT HAS HAPPENED IN THE LAST MONTH AND WHAT'S TO COME!

Welcome to the March Edition of the OU CS Newsletter!

March is flying by, and there's so much happening in CS right now. Whether you're deep into midterms, trying to figure out your schedule for next semester, or just counting down the days until summer, we've got you covered with the latest updates, events, and opportunities.

As the semester speeds along, student orgs are in full swing, career fairs are bringing in recruiters, and graduation prep is kicking into high gear for our seniors. We're also looking ahead to some major events like Giving Day, the Big Event, and the CS Soirée. It's a busy time, but there are so many ways to get involved, meet new people, and make the most of your time in CS.

From Donut Stress to professional development opportunities, March has been packed with ways to connect, learn, and grow. April is shaping up to be just as eventful, so be sure to check out everything we have going on below and mark your calendars!

As always, if you have any questions or want to get more involved, don't hesitate to reach out.

Enjoy this month's newsletter!

In this newsletter you can expect:

Announcements & Upcoming Events

OU Giving Day

Opportunities

March Recap

Why Grad School?

### Announcements

### OU CS is on Instagram!

Follow <u>@ou\_cs\_</u> for updates, events, and all things Computer Science at OU.

### OU CS Communications Discord

<u>Click Here</u> to join the official CS communications discord where students & faculty can keep each other informed on the current happenings!

### CS Faculty Candidate Search

Join us for free lunches with potential CS faculty. Please email Courtney Ball (courtney.ball-1@ou.edu) if you are interested.

### OU CS LinkedIn

The OU Computer Science LinkedIn is a great place to stay connected, share opportunities, and engage in discussions about the field. <u>Click Here to Join!</u>

### OU CS Facebook

Follow the <u>Computer Science - University of</u> <u>Oklahoma Facebook Page</u> to stay updated on what's going on around campus and in the School of Computer Science!

### Kerber Scholars

With the second-round of midterms in full swing and finals just around the corner, now's the perfect time to get extra support. The Kerber Scholars are here to help with your undergraduate CS coursework! Find a tutor here!

### Association of Women in Computing

AWC is back on campus! They're building a strong community for women in tech through mentorship, networking, and leadership opportunities. <u>Join the Discord!</u>

# **Upcoming Events**

#### CS Research Day - March 31st

Discover the exciting research happening in the School of Computer Science!

- Welcome Workshop & Info Session: 9:00
   AM 10:00 AM (DEH 220)
- Poster Session 1: 10:30 AM 12:00 PM (Devon Atrium)
- Poster Session 2: 12:30 PM 2:00 PM (Devon Atrium)
- Seminar Session: 3PM 5PM (DEH 220)

Please sign up <a href="here">here</a> ASAP!

#### Fall 2025 Enrollment Opens - March 31st

Now's the time to check your enrollment window, meet with your advisor, and finalize your course schedule.

### **CS Monthly Event - April 4th**

Join us for the monthly CS social event -meet fellow students and chat with faculty in an informal setting! More details to come.

### CS Board of Advisors Meeting - April 4th

The BoA will be on campus! Feel free to network and connect with them!

#### Big Event - April 5th

Be part of OU's largest day of community service - a great way for CS students to give back!

### **OU Giving Day - April 8th**

Help support OU CS and the CS Student Organizations by participating in this 24 hour event of giving! Click Here to Learn More!

### CS Soirée - April 26th

Join us for an exclusive networking event connecting students, alumni, faculty, and Board of Advisors members. Enjoy hors d'oeuvres as you engage in meaningful conversations and build valuable connections.

Saturday April 26th 6PM-8PM Jimmie Austin Golf Club | Everest Event Center 4 Ransom Drive, Norman, Oklahoma 73019

Invitation coming soon!

## Opportunities

### Job & Internship Postings

### **I-CCEW Internship**

Applications due April 4, 2025

I-CCEW is Oklahoma's largest innovation consultancy, accelerating growth through consulting, training, and leadership development.

As a nexus of entrepreneurial activity in the state, I-CCEW provides immersive learning experiences, collaborative spaces, high-impact programming, and entrepreneurial consulting to graduate and undergraduate students, young professionals, entrepreneurs, and community members in Norman, Tulsa and Oklahoma City.

Apply Here: Click Here!

### **Paycom Software Developer**

Applications due June 1, 2025

Ready for a challenge beyond just mindlessly writing code to satisfy a set of specifications? Our team needs more members like you so we can hear your ideas, benefit from your experience, and have your voice join ours in making our application even better in an industry where we are leading the way. With your educational background you would be a good fit for our software developer position located in either Oklahoma City, OK or Grapevine, TX.

Apply here: Software Developer - OU

#### iSpace Technologies Software Summer 2025 Internship

Englewood, Colorado

As a US company with a global presence and heritage, our view of a mission is bigger than a destination. The collaborative process and shared human experiences on our way to the Moon are just as important as touching down on the lunar surface. Transparency, diversity, collaboration and commitment to excellence define who we are. We want our team members to build a career at ispace US! iSpace US located in Englewood, Colorado is looking for highly motivated and talented students to join our team for our 12 week **2025 Summer Internship** program!

Apply here: Click Here!

#### Honeywell Software Summer 2025 Internship

Remote

Join a team that designs, develops and integrates highly complex software applications within Honeywell. You will be an active and integral member of a team to achieve the completion of goals. You will also generate innovative solutions in work situations, trying different and novel ways to deal with problems and opportunities.

Use your skill set to provide value added software features to our products for our customers. Accelerate innovation and growth, teaming with the world's most talented engineers.

Apply Here: Click Here!

## Opportunities

### Research

### **Apply for GCoE Research Fellowship!**

Applications due March 24, 2025

Are you currently conducting undergraduate research under a faculty mentor in the College of Engineering? Apply for funding to support your work! **Be sure to click** *Engineering Research Fellowship* when applying!

Apply Here: Click Here!

### Data Interaction and Visualization (DIV) Lab

No deadline

Data Interaction and Visualization (DIV) Lab at OU is recruiting UG and MS students on various research projects. Reach out to quadri@ou.edu if you are interested.

### **CS Research Day**

March 31st, 2025

Join us Monday, March 31st for CS Research Day! Feel free to show up and explore all the amazing research going on within OU CS,. Sign up *now* to let us know you'll be attending (check email from jaylin.m.milligan-1@ou.edu)!



# Opportunities

### Seminars

# Software Engineering and Design for Safe and Reliable sUAS operations in Complex Enviornment by Ankit Agrawal

March 24th, 2025 | 9:00 AM-10:00 AM | Devon Energy Hall 220

Dr. Ankit Agrawal is an Assistant Professor of Computer Science at Saint Louis University. He received his Ph.D. in Computer Science from the University of Notre Dame, Indiana, in 2022.

In this presentation, I will discuss my research, which adopts a software engineering perspective to advance three key areas: (I) novel AI-based simulation testing methodology to rigorously evaluate the safety and reliability of AI-driven UAVs; (2) a high-fidelity test-bed that simulates urban environmental factors primarily responsible for drone crashes, such as turbulent wind conditions and GPS signal uncertainty in order to enable the early identification of safety risks; and (3) system design innovations, including augmented reality (AR) interfaces, to enhance situational awareness of end users, such as police officers and firefighters, who rely on UAVs as mission-critical tools in high-stakes operations.

# Bridging the Gap: Human-Centered AI in Software Engineering by Ze (Zane) Shi Li May 26, 2025 | 9:00AM-10:00AM | Devon Energy Hall 220

Ze Shi (Zane) Li is a final year Ph.D. candidate in Computer Science at the University of Victoria, working in AI for software engineering, requirements engineering, and human-centered AI.

In this talk, I will examine the role of human-centered AI in software engineering, exploring challenges that influence the adoption, usability, and trustworthiness of AI tools. Through insights from empirical studies, I will highlight the gaps that need to be addressed to ensure AI tools are not only powerful but also reliable, ethical, and effectively used in software development. By understanding these socio-technical factors, we can design AI-augmented software engineering practices that empower developers, improve decision-making, and improve collaboration between humans and AI systems.

### When Software Productivity Meets Code Quality by Ali Shokri

March 27, 2025 | 4:00PM-5:00PM | Devon Energy Hall 420

Ali Shokri is a Postdoctoral Research Associate in the ECE Department at Virginia Tech, working at the intersection of software productivity and quality. His research focuses on formally verified LLM-based approaches, aiming to improve software efficiency and reliability.

In this talk, I will present a novel approach to bridging software productivity and quality by introducing a framework that unifies both aspects. By aligning development efficiency with quality assurance from the outset, we can enable automated software construction approaches that accelerate implementation while ensuring both syntactic and semantic correctness of the code. I will also share insights from my research on addressing this gap, paving the way for a more sustainable and scalable future in software engineering.

## March Recap

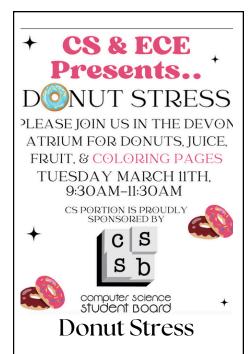
### Notable Events in March

### Engineering the Future Career Fair

The Oklahoma Engineering Futures Fair provided OU students with an incredible opportunity to connect with engineering and technical employers from across the state. Students engaged with recruiters, explored internship and full-time job opportunities, and expanded their professional networks. This event served as a valuable resource for those looking to break into the industry and gain insights into potential career paths. Thank you to everyone who participated and made this event a success!

### Dr. Ahmadreza Rofougaran: Al & Engineering Seminars

Dr. Ahmadreza Rofougaran recently visited OU to present two insightful seminars on AI, engineering, and the evolution of mobile communication. As a leading expert in Radio Frequency Complementary Metal-Oxide-Semiconductor (RF CMOS) technology, Dr. Rofougaran provided valuable insights into the development of wireless technology and 5G networks. Students and faculty engaged in thought-provoking discussions about the future of AI-driven connectivity and its impact on next-generation advancements. Thank you to everyone who attended and contributed to the success of these seminars!



The CS department aims to host a monthly event for students, faculty, and staff to connect in an informal setting. This month, we opted for a "DONUT STRESS" social event with the ECE department.

Thank you to the Computer Science Student Board (CSSB) for funding this event!







# In the Spotlight: Why Grad School?

Hear firsthand why grad school might be the right fit for you! Whether wanting to pursue a masters, Ph.D. and continue in academia, or take your education to industry, we have all perspectives featured below!

# Hear from a current professor and Ph.D student



### Dr. Ghulam Jilani Quadri, Assistant Professor at OU

**Research Interests**: HCI, Data Visualization, Applied AI/ML, Perception & Cognition Science

### What was the biggest surprise about grad school?

"One of the biggest surprises was realizing that publishing a paper takes considerable time. Often, our results may not fully align with our initial research ideation and proposal, requiring multiple iterations. In many cases, we may need to repeat the same experiment several times to refine our findings and strengthen the study."

### How has grad school helped you grow?

"Graduate school has helped me become more focused, resilient, and committed to striving for excellence."

### Why did you choose academia?

"I chose to attend graduate school to pursue a Ph.D. program and build a career in academia and research. My passion lies in advancing knowledge, conducting impactful research, and bridging theoretical and practical advancements. Graduate school has provided me with the expertise, mentorship, and research opportunities necessary to achieve these goals. As I explored different career paths, my Ph.D. experience helped me realize what I truly enjoy—research and teaching. I found great fulfillment in working on complex problems, identifying solutions, and implementing them. Additionally, mentoring junior Ph.D. and undergraduate students was a transformative experience, reinforcing my aspiration to become a dedicated computing educator."



### Khoi Trinh: Ph.D. Candidate in Data Science and Analytics

**Research Interests**: Al-generated media, human-Al interaction, and accessibility and equitability in generative Al

### Why did you choose graduate school?

"I wanted a few years extra to find a job (half joking). I've always been interested in academia, I enjoy doing research and coming up with novel ideas with my peers and colleagues."

### What was the biggest surprise about grad school?

"I find it a lot easier to build connections with your peers and professors in grad school, due to the typically smaller class sizes."

### How has grad school helped you grow?

"I've grown a lot more confident in communicating my ideas and communication in general. I've also built a few important connections that would help me in my future should I choose to go into industry."

### What would you tell an undergrad debating whether to go to grad school?

"Graduate school isn't for everyone! If you are sure you want to do grad school, research the program and any potential advisors that you would like to work with, along with the people in their lab. I chalk my good experience of my Ph.D. to having a great relationship with my advisor, Dr. Maiti, and the rest of the folks in SecretLab."

### Current Ph.D Students continued



### Sam Bird: Ph.D. Student

Research Interests: Database Management

### Why did you choose graduate school?

"I was originally interested in the accelerated master's program, which seemed like a great opportunity. While I was completing my master's degree, I was a TA for Dr Le Gruenwald, who offered me a position as a PhD student on her research project. I love research and the more theoretical side of CS, so I jumped at the opportunity."

### What was the biggest surprise about grad school?

"It's more self-motivated than I originally imagined. While we do have research goals, it's largely down to me to set my work schedule and determine what to focus on each week (though my advisor does guide me in this regard). I also didn't know PhD programs are typically funded, including a tuition waiver and stipend, which made it easier to follow my interests instead of going straight into the job market."

### How has grad school helped you grow?

"My research area is at the intersection of a few different topics that all interest me, and I think my understanding of all of them has grown as a result."

### What would you tell an undergrad debating whether to go to grad school?

"If you're at all interested in research, I would recommend grad school, especially the accelerated master's program."



### Pantia Marina Alchirch: Ph.D. Student

Research Interests: AI, ML, ML with Data Streams

### ■ Why did you choose graduate school?

"My main career goal is to become an Al Researcher, so a PhD seemed to be the appropriate path to take to reach that goal."

### ■ What was the biggest surprise about grad school?

"I believe that the biggest surprise/challenge is the adaptability that comes with a PhD. That is, you need to be adaptable to changes in your research, which can change lots of times until you find the main area and focus that suits you best."

### How has grad school helped you grow?

"I would say it has helped me in many ways. Firstly as a scientist, where I learned and still learning that I need to have more patience. That is, if something does not work in the 100th trial I have to continue with trial number 101th, and so on until I get the expected results. As a person I would say it has grounded me and made me realize that I know one thing and that is nothing (Socrates). After a person makes that realization, their view in life is changes radically. They are more open to the world, new ideas and question their own, which I think is a quality that every scientist (and person) needs to have."

### What would you tell an undergrad debating whether to go to grad school?

"If you are up for the challenge (because it is), and you want to study new techniques and ideas for the rest of your life, you should definitely go for it. However, do what you really want to do and not what others want from you. Life is very short and the career path we choose takes a lot of time from it. So, you need to do something that you are not only talented at but also enjoy."

### Hear from Alumni



### Koy Wilson: Alumni

Research Interests: Ethereum

### Why did you choose graduate school?

"I chose graduate school as I knew it would open doors to many other opportunities in life."

### How has grad school helped you grow?

"My master's has helped in multiple ways. At work, I have the opportunity to apply for leadership roles since a higher degree is required. I've also applied to multiple law schools. Having a master's has been a highlight on all my applications--helping me obtain scholarships."

### What was the biggest surprise about grad school?

"The bigggest surprise was how much more "laid back" the courses were compared to undergraduate. In the classes I took, instead of having multiple exams or finals to study for I would have projects that could be worked on for multiple weeks--if not the entire semester. However, the work is much more challenging. I would come home from my shift at work only to put in another 4-6 hours on given assignments. This also came with a feeling of accomplishment after finishing any assignment."

### ■ What would you tell an undergrad debating whether to go to grad school?

"Connect with your professors/peer about their thoughts. Having somebody to talk to about their experience may help give you a pointof-view that you hadn't considered."

### Anything else you'd like to share with anyone considering going to grad school?

"Don't be scared. If you are hesitant to commit to graduate school--please--reach out to professors to get their input or training. You can speculate on how graduate school is all you want. Actually going to discuss your professors' experience will give you genuine insight on their journey."

### From Another Alumni....

Research Interests: Cybersecurity & Networks

### Why did you choose graduate school?

"I was debating it in my first semester as a CS major when Dr. Trytten told the class that there was an accelerated master's program for only one year. From what I know of the job market, an extra level of education means an extra pay bump almost anywhere. The initial reason was the higher pay but the courses taught in the master's level piqued my interest more than those of the undergrad level, so that was a factor in continuing higher education."

#### What was the biggest surprise about grad school?

"I think it would be less exams and most times no finals, with most of the time a big project acting as the final. It depends on the professor but they're not obligated to give finals unless in undergrad school."

### How has grad school helped you grow?

"Grad school has more niche topics so I think being able to further explore an interest in an area (i.e., Cybersecurity) helped solidify what type of job I should apply/lean more towards career-wise. It also promoted both independence and teamwork with more group projects, yet also having less fellow classmates you'd know. Personally, it expanded my perspectives on CS topics and drew me to learn and understand on them."

#### ■ What would you tell an undergrad debating whether to go to grad school?

"It depends on the reason why they're hesitant. If the reason is the cost, it would be an investment. At OU, I learned from the bursar office, grad school has less fees than undergrad does and courses cost about ~\$1600 each. However, the pay after would be around \$16K more than those with just a BS, so it would be paid off relatively quickly. If the reason is on courses, the topics in grad school, in my opinion, are also more interesting and the chances of having to study for a final is lesser with professors giving less finals. Some classes in undergrad basically act as building blocks to the ones in grad school, piecing ideas together and putting them into practice with the projects. The class size is typically also smaller, so more personal communication with the professor is possible."

Thank you for reading!

This month, we highlighted March's CS events

This newsletter was written and edited by CS Kerber Ambassadors Shiloh Sells and Emma Smith. If you have stories, research updates, event announcements, or anything else you'd like to see featured in future editions, please reach out to **kerberambassadors@ou.edu**We'd love to hear from you!

Thank you for being a part of the OU CS community. Stay connected, and we'll see you in next month's edition!

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