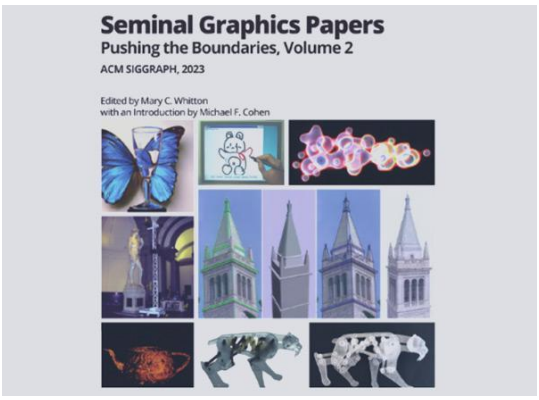
CSE NEWS

9 CSE Research Papers Included in ISCA's 25-Year Retrospective

Research conducted by CSE professors Hadi Esmaeilzadeh, Dean Tullsen and Jishen Zhao was selected for a volume of memorable papers within computer architecture. Read More



50 Years of Graphics Research – CSE Leads the Way in Rendering

The Association for Computing Machinery's anniversary volume of Seminal Graphics Papers includes research on rendering from CSE Emeritus Professor Henrik Wann Jensen and Professor Ravi Ramamoorthi. Read More

CSE Welcomes 6 New Faculty

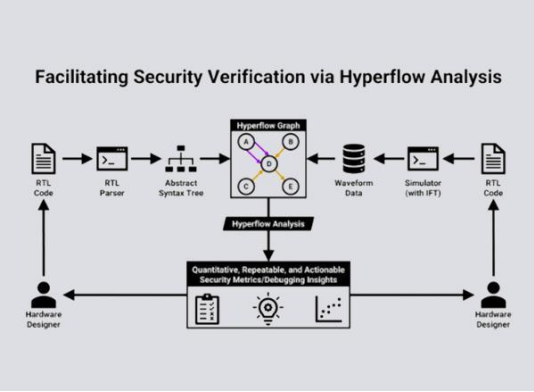
An impressive cohort of new faculty members will be joining CSE over the next two academic years. Yufei Ding and Qipeng Liu are starting this Fall, both working in Quantum Computing, while the remaining four start in Fall 2024. Prithviraj (Raj) Ammanabrolu, Lianhui Qin and Alex Tamkin work on Machine Learning and Language Models, while Deepak Kumar works on Harassment threats and online safety. Welcome to our CSE community!

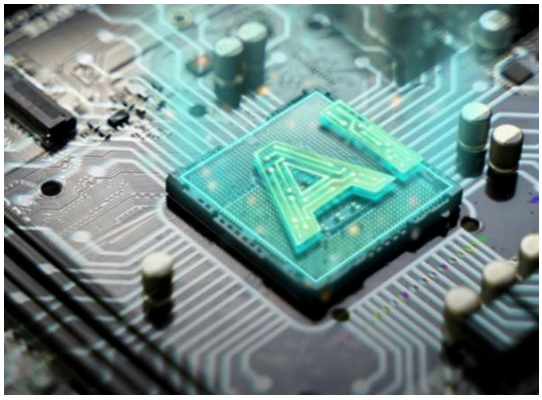
Ravi Ramamoorthi Recognized for Neural Radiance Fields

Ravi Ramamoorthi has received a Frontiers of Science Award at the 2023 International Congress of Basic Science for synthesizing photorealistic views of complex scenes using a continuous radiance field representation. Read More

Rose Yu Receives Army Early Career Program Award

Assistant Professor Rose Yu has been awarded $1 million by the Army to develop a novel deep learning framework based on symmetry with direct applications for the Department of Defense. Read More



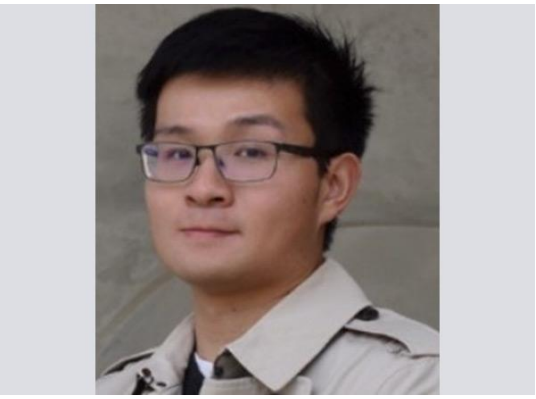


CSE Teams Earn Qualcomm

7 AI-Powered Technologies You

Four teams at UC San Diego have been awarded prestigious Qualcomm Innovation Fellowships for North America in 2023, including two CSE teams. Read More

Advances in AI can help inform decision-making, accelerate scientific discovery – and even save lives. CSE professors Laurel Riek, Julian McAuley, and Henrik Christensen are at the forefront of this AI Revolution. Read More



Scammers Can Impersonate High-profile Domains

Sending an email with a forged address is easier than previously thought, due to flaws in the process that allows email forwarding, according to research by CSE PhD student Alex Liu. Read More

CSE Tackles Annual Waste of 1.5 Billion Junked Smartphones

CSE PhD student Jennifer Switzer and her coauthors have proposed a strategy to target smartphone waste by harnessing working processors for commercial purposes – all in hopes of leaving a smaller carbon footprint. Read More

High Mutations Rates Found in Complex Genomic Regions

Distinguished Professor Pavnel Pavzner and PhD student Andrey Bzikadze shared a new UniAligner algorithm for comparing highly repetitive genomic regions. Read More

Collaborative Engineering Efforts Funded by Cisco Research

In a first-of-its-kind agreement, funding from Cisco Research will advance eight engineering projects that tap into the strengths of university researchers in cybersecurity, networking and distributed systems. Read More

NOTEWORTHY

USENIX Security Symposium & Soups 23 Conference

CSE researchers presented three papers at the 32nd USENIX Security Symposium in early August:

Access Denied: Assessing Physical Risks to Internet Access Networks by **Alexander Marder**, **Zesen Zhang**, **Ricky Mok**, **Ramakrishna Padmanabhan**, **Bradley Huffaker**, Matthew Luckie, Alberto Dainotti, **kc claffy**, **Alex C. Snoeren** and **Aaron Schulman**.

Improving Logging to Reduce Permission Over-Granting Mistakes by **Bingyu Shen**, **Tianyi Shan**, **Yuanyuan Zhou**.

NVLeak: Off-Chip Side-Channel Attacks via Non-Volatile Memory Systems by **Zixuan Wang**, **Mohammadkazem Taram, Daniel Moghimi**, **Steven Swanson**, **Dean Tullsen**, and **Jishen Zhao**.

At a related conference, SOUPS 23, CSE researchers presented a paper on email spoofing: Understanding the Viability of Gmail's Origin Indicator for Identifying the Sender by **Enze Liu**, **Lu Sun**, **Alex Bellon,** Grant Ho, **Geoffrey M. Voelker**, **Stefan Savage**, and **Imani N. S. Munyaka**.

Amazing CSE Faculty & Students: In the Spotlight

Professors **Shachar Lovett** and **Ravi Ramamoorthi** were recognized with Frontiers of Science Awards at the International Congress for Basic Science's inaugural conference.

Catch **Leo Porter** on an Association for Computing Machinery TechTalk. In a recent TechTalk, conducted with Daniel Zingaro from the University of Toronto, Porter explored how Large Language Models like GitHub Copilot and ChatGPT can shift the skills needed to succeed at programming and enable more students to become successful programmers.

This summer, CSE undergrad and TikTok singer-songwriter sensation **Charisse Chua** made a splash as a special guest on the Kelly Clarkson Show, where she shared two original singles – Fridays and Closer to Closure – and met her idol, Meghan Trainor.

CSE EVENTS

Coming to Your CSE Community

Summer Internship Symposium 10th Anniversary
Thursday, October 26

Tutor Reunion
Friday, October 27

CSE Alums Gather – from the Pacific Northwest to SoCal

Over summer break, CSE hosted three Alumni Summer Picnics – in the Bay Area, Seattle and San Diego. The informal reunions were an opportunity for alumni to reconnect with fellow alums and get involved with the CSE department. At venues ranging from Steins Beer Garden in Mountain View to The Can Can Bistro & Bar in Seattle to UC San Diego's own Engineering Bear Courtyard, our faculty, alumni, and their families enjoyed socializing and great food.

RESEARCH CENTERS & INSTITUTES

CONTEXTUAL ROBOTICS INSTITUTE

CRI Recognized with 16 Robotics Research Papers at ICRA

On behalf of the Contextual Robotics Institute (CRI), CSE's Sean Gao presented two of the institute's 16 research papers at the International Conference on Robotics and Automation (ICRA) 2023 in London. ICRA brings together robotics researchers,

CRI Researchers Impacting Robotics

Gao, who earned a 2023 Amazon Research Award and is a recent recipient of the National Science Foundation's CAREER Award, shared two promising directions being explored by CRI researchers: Learning Stabilization Control from Observations by Learning Lyapunov-like Proxy Models by Milan Ganai, Chiaki Hirayama, Ya-Chien Chang, and Sicun Gao; and Accelerating Multi-Agent Planning using Graph Transformers with Near-Optimal Guarantees by Chenning Yu, Qingbiao Li, Sicun Gao and Amanda Prorok.

Led by CRI Director Henrik Christensen, the institute is a collaborative of university researchers working to solve pressing robotics challenges in autonomous systems, cyber-physical technologies and medical robotics.

the latest innovations and highlight the role of robotics and automation in addressing global challenges.

The institute is housed in engineering's Franklin Antonio Hall.