Welcome

CSE at the University of Michigan is growing in so many ways. Undergraduate enrollments are now over 1700, an all-time high, with about 100 in our new Data Science program. Computer science is now the second largest undergraduate program at Michigan.

The past year has seen our researchers leverage data science techniques to make important connections. In partnership with Google, CSE data scientists are pointing to locations in Flint, Michigan that are most at risk for lead contamination. In an NIH-funded collaboration with our medical school, they are predicting the probability that a given patient will contract C. diff during a hospital stay.

Our artificial intelligence researchers, funded by IBM, are creating and deploying a digital student advisor that will provide our students advice in multi-turn, goal-driven conversations. They are also making intelligent transportation networks a reality at Mcity in partnership with industry, other academic institutions, and governments at all levels. Our security researchers are securing the web through the establishment of Let’s Encrypt, a free and easy-to-use certificate authority. And for the second year in a row, two of our faculty have been named Sloan Research Fellows.

I am now pleased to introduce you to the faculty who’ve joined us in 2016: researchers and educators who will play an important role as CSE @ Michigan continues to impact our world.
William Arthur
Lecturer
PhD, Computer Science and Engineering, 2016
University of Michigan

William’s research has been in the areas of computer architecture and security. William has taught as both a graduate student instructor and a primary instructor while at Michigan. Through a partnership between Michigan and Addis Ababa Institute of Technology in Ethiopia, he taught a course on Fault-Tolerant Computing to AAIT’s PhD cohort during the summer of 2015. He has served as a teaching consultant and orientation facilitator for student instructors and has led seminars on teaching at the College of Engineering. He joined CSE in September 2016.

Manos Kapritsos
Assistant Professor
PhD, Computer Science, 2014
University of Texas, Austin

Manos’ research interests are in the area of software systems, with a focus on fault-tolerant distributed systems. In his dissertation research, Manos reconciled replication with multithreaded execution by rethinking the 40-year-old architecture of replicated systems to enable the performance benefits of parallel execution. In postdoctoral work, he has proposed a new way of reasoning about complex distributed systems through a combination of reduction and multilevel refinement to partition them into smaller, manageable components. Manos is currently a postdoctoral researcher at Microsoft Research. He will join CSE in January 2017.

Baris Kasikci
Assistant Professor
PhD, Computer Science, 2015
École Polytechnique Fédérale de Lausanne

Bari’s research interests are in the area of software systems, with a focus on techniques, tools, and environments for building reliable and secure software. He has proposed and investigated techniques for the detection, classification, and root cause diagnosis of bugs, with a particular emphasis on concurrency bugs. He was the recipient of the 2016 Roger Needham PhD Award in Europe and the 2016 Patrick Denantes Memorial Prize for outstanding PhD thesis at the School of Information and Communication Sciences at EPFL. Baris is currently a researcher at Microsoft Research. He will join the faculty at CSE in September 2017.

Héctor García
Lecturer
PhD, Computer Science and Engineering, 2013
University of Michigan

Héctor’s research has been centered on the design of tools to identify and analyze potential advantages and pitfalls in emergent computing technologies such as quantum computers. While at Michigan, Héctor taught as a graduate student instructor. Prior to joining CSE as a Lecturer, he worked as a software developer for Amazon and as software development manager for TD Ameritrade’s thinkorswim financial trading tools platform. In 2014, he was inducted into the Bouchet Graduate Honor Society. He joined CSE in September 2016.

Andrew Lukefahr
Lecturer
PhD, Computer Science and Engineering, 2016
University of Michigan

Andrew’s research has been focused on improving the energy efficiency of mobile processor cores by introducing heterogeneity within the core to enable both high performance and energy efficient modes. Prior to joining the faculty, Andrew taught as a primary instructor while a graduate student at Michigan and interned at ARM. In 2013, he received recognition for the Best Hardware Presentation in the CSE Graduate Student Honors Competition. He joined CSE in September 2016.

Arunesh Sinha
Assistant Research Scientist
PhD, Electrical and Computer Engineering, 2014
Carnegie Mellon University

Arunesh’s research has primarily been in the domain of game theory, machine learning, and security and privacy. His research interests include building and analyzing mathematical models that provide guidance to defenders in a multi-agent setting. He is interested in the theoretical aspects of such problems, along with an emphasis on real-world applicability of the models. Arunesh joined the faculty at Michigan in August 2016.