DISTINGUISHED LECTURE SERIES | 2015 2016

RASTISLAV BODIK

PROFESSOR OF COMPUTER SCIENCE & ENGINEERING
UNIVERSITY OF WASHINGTON

Professor Rastislav Bodik's work focuses on developing methods for algorithmic program synthesis by combining principles of programming languages, compilers, human-computer interaction, and formal methods. His group developed Sketch, the first algorithmic synthesizer for imperative programs and applied synthesis to parallel document layout engines, ultra-low-power computer architectures, and executable biology. He has earned a number of awards for teaching and research, including an NSF CAREER Award, and the ACM SIGPLAN Doctoral Dissertation Award. He is also a co-founder of SNAPL, the Summit on Advances in Programming Languages.

OCTOBER 1, 2015
Program Synthesis

CYNTHIA DWORK

DISTINGUISHED SCIENTIST
MICROSOFT RESEARCH

Dr. Cynthia Dwork is renowned for placing privacy-preserving data analysis on a mathematically rigorous foundation. A cornerstone of this work is differential privacy, a strong privacy guarantee frequently permitting highly accurate data analysis. Dwork has also made seminal contributions in cryptography and distributed computing and is a recipient of the Edsger W. Dijkstra Prize, recognizing some of her earliest work establishing the pillars on which every fault-tolerant system has been built for decades. She is a member of the NAS, the NAE, and a Fellow of the AAAS.

OCTOBER 8, 2015
Theory for Society

VIPIN KUMAR

REGENTS PROFESSOR & WILLIAM NORRIS ENDOWED CHAIR IN LARGE SCALE COMPUTING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
UNIVERSITY OF MINNESOTA

Professor Vipin Kumar's research interests include data mining, high-performance computing and their applications in Climate/Ecosystems and Biomedical domains. He co-founded SIAM International Conference on Data Mining and served as a founding co-editor-in-chief of Journal of Statistical Analysis and Data Mining. Kumar's foundational research in data mining and its applications to scientific data was honoured by the ACM SIGKDD 2012 Innovation Award, which is the highest award for technical excellence in the field of Knowledge Discovery and Data Mining. Kumar is a Fellow of the ACM, IEEE, and AAAS.

NOVEMBER 5, 2015
Understanding Global Change:
Opportunities & Challenges for Data Driven Research

EDWARD ADELSON

JOHN & DOROTHY WILSON PROFESSOR OF VISION SCIENCE
DEPARTMENT OF BRAIN AND COGNITIVE SCIENCES
COMPUTER SCIENCE & ARTIFICIAL INTELLIGENCE LAB
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Professor Edward Adelson has authored numerous papers in the fields of human perception, computer vision, image processing, computer graphics, and computational photography. Recently, he has been working on artificial touch sensing, with application to robotics and microscale 3D measurement. His honours include The Rank Prize in Opto-electronics, the Adolph Lomb Medal, two IEEE "test of time" awards in computer vision, and election to the NAS.

NOVEMBER 12, 2015
Sensing Surfaces with GelSight

MATT MIGHT

ASSOCIATE PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE
UNIVERSITY OF UTAH

Professor Matt Might's interests focus on making software faster, safer, and more secure. He is an expert in automated, semantics-driven analysis of modern software systems and complex formal models. Might is currently a visiting Associate Professor in Biomedical Informatics at the Harvard Medical School. His interests there include Internet-driven case-finding for rare disease, systematizing delivery of care in genomic medicine, systems pharmacology, and in silico drug discovery. He has been actively engaged with White House and NIH leadership on the Precision Medicine Initiative, serving as an ardent advocate for translational science in precision medicine. He is a recipient of an NSF CAREER Award and has recently been appointed a Presidential Scholar.

NOVEMBER 19, 2015
An Algorithm for Precision Medicine

MANUELA VELOSO

HERBERT A. SIMON UNIVERSITY PROFESSOR, COMPUTER SCIENCE DEPARTMENT
CARNEGIE MELLON UNIVERSITY

Professor Manuela Veloso's research is in the area of Artificial Intelligence and Robotics. She founded and directs the CORAL research laboratory for the study of autonomous agents that Collaborate, Observe, Reason, Act, and Learn. Professor Veloso and her students have worked with a variety of autonomous robots, including those for mobile service and for soccer. The CoBot service robots have autonomously navigated for more than 1,000 km in multi-floor office buildings. She is an IEEE Fellow, AAAS Fellow, AAAI Fellow, and the past President of AAAI and RoboCup.

JANUARY 13, 2016*
Symbiotic Autonomy: Robots, Humans & the Web

*Professor Veloso's talk will be co-hosted by the Institute for Robotics & Mechatronics (IRM) and the Department of Computer Science (DCS). Please note this talk will take place at 4:00 PM in BA1170.

Computer Science
UNIVERSITY OF TORONTO