John Criswell
Associate Professor of Computer Science

John Criswell’s research focuses primarily on computer security, using compiler techniques to protect commodity software and low-level systems code. His previous work, the Secure Virtual Architecture (SVA), hardens operating system kernels from attack and protects applications from direct and side-channel attacks launched by kernel-level malware. Criswell is the lead maintainer of the SAFECode memory safety compiler and has contributed to the open-source LLVM Compiler Infrastructure.

Zhen Bai
Assistant Professor of Computer Science

Zhen Bai’s research focuses on designing embodied and intelligent interfaces that improve learning and social interaction for people with diverse abilities (e.g., children, autism, deafness) and backgrounds. Bai’s research spans Human-Computer Interaction, Augmented and Virtual Reality, Embodied Conversational Agent, computer-supported collaborative learning, and assistive technologies. Her most recent work includes accessible learning technologies for K–12 AI education and Augmented Reality in supporting face-to-face communication. Bai received the honorable mention best paper award at the IDC, ISMAR, AIED, and EC-TEL conferences. She is the recipient of a Google Inclusive Research Award. Bai received her PhD from the University of Cambridge and was a postdoctoral fellow at Carnegie Mellon University before joining the University of Rochester.
Rochester.

University of Pennsylvania prior to joining the University of reasoning in natural language. He was a Ph.D. student at the Bessel Research Award; and serves on eight editorial/advisory hundreds of publications; has coauthored with more than 50 collapsed the strong Memory Management in 2020.

a cochair of the ACM SIGARCH International Conference on optimization, memory managemen professor. He has published 69 refereed papers and has been granted 19 U.S. Patents. He is an NSF CAREER award winner and a Senior Member of the IEEE.

Professor of Computer Science

Hangfeng He's research interests include computational processing, with a focus on incidental

Professor of Computer Science

computational complexity, pseudo-randomness, and combinatorics. He works on the role of randomness in computation and deterministic construction of reproductive algorithms. He has behavior. He uses pseudorandomness as a tool in combinatorics and algorithm design. Hosseini received his PhD from the University of California, San Diego and was a postdoctoral associate at Carnegie Mellon University before joining the University of Rochester.

Hangfeng He

Robert A. Jacobs

Robert A. Jacobs's research combines computational modeling and behavioral experiments in order to develop and evaluate theories of human perception and cognition. He uses machine learning and statistical techniques to develop models of human visual and multisensory perception in domains such as object recognition and classification and human ability. His group models and captures multimodal data, and the computational complexity and algorithmic challenges associated with it. He has authored one book and more than 100 papers, serves as reviewer for numerous publications, has been awarded an NSF CAREER grant, and is the recipient of a Google Faculty Award.

Professor of Computer Science and of Brain and Cognitive Sciences

Professor of Computer Science

Fatemeh Nargesian's research in data

Fatemeh Nargesian

Associate Professor of Computer Science

Sreepathi Pai works on heterogeneous computer architectures in the areas of compilers, computer architecture, and performance modeling, aiming to simplify programming for these complex machines. His most recent work includes the IHL compiler for high-performance graph computations on graphics processing units (GPUs) and the Operator Machine performance model. In 2017, his work was named an IEEE/Amazon/DARPA GraphChallenge Champion. Pai received his PhD from the Indian Institute of Science and was a postdoctoral fellow at the University of Texas at Austin before joining the University of Rochester.

Assistant Professor of Computer Science

Ehsan Hoque's research program aims to use techniques from artificial intelligence to amplify human ability. His group models and captures the dynamics of human behavior and their relationship to computation and education. Ehsan and his students' work has been recognized by NSF CAREER Award, MIT TR35, and Young Investigator Award by the US Army Research Office (ARO). In 2011, Ehsan was named one of the 10 researchers to watch, and in 2020, the National Academy of Medicine recognized him as one of the emerging leaders in health and medicine. He earned his Ph.D. from MIT in 2013.

Ehsan Hoque

Associate Professor of Computer Science

Christopher Kanan

Christopher Kanan's research focuses on deep learning, especially lifelong machine learning, where he takes inspiration from cognitive science to make neural networks capable of learning over time for large-scale problems. His research includes automatic perception and reasoning tasks. Other recent projects cover self-supervised learning, open-world learning, and creating bias robust neural network architectures. He also has an interest in artificial applications of machine learning, especially computational pathology. Previously, he led AI R&D at the start-up Paige, leading to the first FDA approved computer vision system for helping physicians diagnose cancer in whole slide images. His work is being used in multiple medical centers across the country in the field of computer aided diagnosis and he is involved in the regulation efforts around this technology.

Associate Professor of Computer Science

Assistant Professor

Jiebo Luo

Professor of Computer Science, Albert Arendt Hopfman Professor of Engineering, Jiebo Luo joined the University of Rochester in 2011 after a prolific, 15-year career at Kodak. Research in his lab spans computer vision, NLP, machine learning, data mining, social media, and digital health. He has authored more than 500 technical papers and more than 90 US patents. He has served as the program chair of ACM Multimedia 2010, IEEE CVPR 2012, ACM ICMI 2016, and IEEE ICP 2017, as well as on the editorial boards of several IEEE Transactions and other journals. He is the editor-in-chief of the IEEE Transactions on Multimedia for a three-year term (2020-2022). He is a fellow of ACM, AAAI, IEEE, SPIE, and IAPR.

Professor of Computer Science

Yuhao Zhu

Yuhao Zhu

Assistant Professor of Computer Science

Yuhao Zhu's research focuses on solving core computer vision problems to pushing the limits of their understanding in the broader AI context, including multimedia perception, cognitive robotics, and data science. He was the recipient of multiple NSF awards, including BIGDATA and CDSSIE, the University of Rochester's AR/VR Pilot Award, Tencent Rhino-Bird Award, a Best Paper Award at Sound and Music Computing Conference, and an Open Source Code Award in IEEE CVPR. He received his PhD from the University of Michigan in 2016.

Assistant Professor of Computer Science

Lenhart K. Schubert

Lenhart K. Schubert

Professor of Computer Science

Lenhart K. Schubert's research focuses on the requirements of software machines capable of commonsense reasoning, planning, language understanding, and conversation, enabling applications such as helpful, companionship agents. These requirements include expressively rich knowledge representations, models of both human inference and direction, and means for acquiring large amounts of propositional, script-like, and schema-like knowledge. Schubert is an AAAI fellow and was a professor of computing science at the University of Alberta before joining the University of Rochester in 1988.

Professor and Chair of Computer Science

Arthur Gould Yates Professor of Engineering

Michael L. Scott

Michael L. Scott's research addresses systems software for parallel and distributed computing, with a particular focus on synchronization algorithms and concurrent data structures. He is also the author of Programming Language Pragmatics, the leading textbook on programming language design and implementation. He is a fellow of the ACM, IEEE, and AAAS, and a winner of the ACM's Edsger W. Dijkstra Prize in Distributed Computing. Locally, he has received the University's Goergen and Riker Teaching Awards and the Hajim School's Lifetime Achievement Award. He spent the 2014-15 academic year as a visiting scientist at Google.

Professor of Computer Science

Chenliang Xu

Chenliang Xu's research interests range from solving core computer vision problems to pushing the limits of their understanding in the broader AI context, including multimedia perception, cognitive robotics, and data science. He was the recipient of multiple NSF awards, including BIGDATA and CDSSIE, the University of Rochester's AR/VR Pilot Award, Tencent Rhino-Bird Award, a Best Paper Award at Sound and Music Computing Conference, and an Open Source Code Award in IEEE CVPR. He received his PhD from the University of Michigan in 2016.

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Assistant Professor of Computer Science

Chenliang Xu

Assistant Professor of Computer Science

Yuhao Zhu

Yuhao Zhu's research focuses on software and hardware for visual computing (e.g., augmented/ virtual reality). Zhu received his PhD from the University of Texas at Austin. Prior to joining the University of Rochester, he held researcher/positions at Harvard University and ARM Research. Zhu received an Honorable Mention for the 2018 ACM SIGARCH/IEEE CS TCCA Outstanding Dissertation Award.

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