

Rice University Data Science Faculty

Genevera Allen

Associate Professor of Statistics, Rice University



Allen's research interests are in developing statistical tools to help scientists understand massive amounts of so-called "Big-Data". Technological advances in medicine, engineering, the Internet, and finance have produced larger and more complex data sets. By using techniques from high-dimensional inference, machine learning, and convex optimization, she solves statistical problems arising from these new technologies. In particular, her methodological and theoretical work lies in the areas of modern multivariate analysis, graphical models, statistical machine learning, and the emerging area of data integration. Her applied research interests include neuroimaging, neural recordings, and high-throughput genomics. She received her PhD in statistics from Stanford University in June 2010 under the direction of Rob Tibshirani. My Bachelor's degree is from Rice University in statistics.

Richard G. Baraniuk

Victor E. Cameron Professor of Electrical and Computer Engineering, Rice University



Professor Richard G. Baraniuk grew up in Winnipeg, Canada, the coldest city in the world with a population over 600,000. He studied Electrical Engineering at the University of Manitoba, the University of Wisconsin-Madison, and the University of Illinois at Urbana-Champaign. Dr. Baraniuk joined Rice University in Houston, Texas, in 1993 and is now the Victor E. Cameron Professor of Electrical and Computer Engineering. He is a member of the Digital Signal Processing (DSP) group and Director of the Rice center for Digital Learning and Scholarship (RDLS). Dr. Baraniuk's research interests lie in the areas of signal, image, and information processing and include machine learning and compressive sensing. He is Director of Connexions, a non-profit publishing project to bring learning materials to the Internet Age which is used by over 2 million people from nearly 200 countries.

Lydia Beaudrot

Assistant Professor of BioSciences, Rice University

Joined Rice summer 2018.



Katherine Bennett Ensor

Noah Harding Professor of Statistics, Rice University



Dr. Ensor is Noah Harding Professor of Statistics in the George R. Brown School of Engineering at Rice University where she serves as director of the Center for Computational Finance and Economic Systems (CoFES). Ensor is overseeing the development of the Kinder Institute Urban Data Platform, a resource for the greater Houston area. She served as chair of the Department of Statistics from 1999 through 2013. Dr. Ensor, an expert in many areas of modern statistics, develops innovative statistical techniques to answer important questions in science, engineering and business with focus on the environment, energy and finance. She is a fellow of the American Statistical Association, the American Association for the Advancement of Science and has been recognized for her leadership, scholarship and mentoring. She is Vice President of the American Statistical Association and a member of the National Academies Committee on Applied and Theoretical Statistics. She holds a BSE and MS in Mathematics from Arkansas State University and a PhD in Statistics from Texas A&M University.

Swarat Chaudhuri

Associate Professor of Computer Science, Rice University



Chaudhuri is an expert on methods for automated reasoning about systems, in particular, abstract interpretation and model checking, and the application of such methods in computer-aided programming. He received his doctoral degree in computer science from the University of Pennsylvania in 2007. From 2008-2011, he was an assistant professor at the Pennsylvania State University, University Park. He is a recipient of the National Science Foundation CAREER award and the ACM SIGPLAN Outstanding Doctoral Dissertation Award.

Reinhard Heckel

Assistant Professor of Electrical and Computer Engineering, Rice University



Reinhard Heckel is an assistant professor in the Department of Electrical and Computer Engineering at Rice University. Before that, he spent one and a half years as a postdoctoral researcher in the Department of Electrical Engineering and Computer Sciences at the University of California, Berkeley. Before that, Reinhard was with the Cognitive Computing & Computational Sciences Department at IBM Research, Zurich. Reinhard completed his Ph.D. in August 2014 at ETH Zurich, Department of Information Technology and Electrical Engineering, advised by Helmut Bölcskei. In Fall 2013, he was a visiting Ph.D. student in the Statistics Department of Stanford University. Reinhard is interested in various topics in machine learning, optimization, mathematical signal processing, and computational biology.

Chris Jermaine

Professor of Computer Science, Rice University



Professor Chris Jermaine received a BA from the Mathematics Department at UCSD, an MSc from the Computer Science and Engineering Department at OSU (his advisor at OSU was Renee Miller, who is now at Toronto), and a PhD from the College of Computing at Georgia Tech hisy advisor at Georgia Tech was Ed Omiecinski). Dr. Jermaine is the recipient of a 2008 Alfred P. Sloan Foundation Research Fellowship, a National Science Foundation CAREER award, and a 2007 ACM SIGMOD Best Paper Award. He has been at Rice since January, 2009, and was on the faculty of the computer science department at the University of Florida from 2002, through August, 2010.

Lydia E. Kavraki

Noah Harding Professor of Computer Science, Rice University



Dr. Lydia E. Kavraki is the Noah Harding Professor of Computer Science at Rice University. She holds joint appointments at the departments of Bioengineering, Computer and Electrical Engineering, and Mechanical Engineering at Rice and is the director of the Computational Robotics Laboratory. Kavraki is interested in the application of machine learning in robotics. Her group develops and distributes the Open Motion Planning Library (OMPL) that is used widely in the robotics community. She also works in biomedical informatics and directs the NLM Training Program in Biomedical Informatics and Data Science under the auspices of the Gulf Coast Consortia. She received her B.A. in Computer Science from the University of Crete in Greece and her Ph.D. from Stanford University.

Caleb Kemere

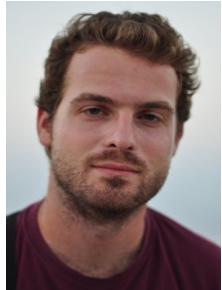
Assistant Professor of Electrical and Computer Engineering, Rice University



Caleb Kemere received his Ph.D. degree in Electrical Engineering from Stanford University. He was a postdoctoral fellow at the Keck Center for Integrative Neurosciences at UCSF before joining the Rice faculty in 2011. Kemere is a winner of a 2013 NSF CAREER Award and recently received a five-year grant from the National Science Foundation. His research interests are building interfaces with memory and cognitive processes; model-based signal processing; low-power embedded systems.

Anastasios Kyrillidis

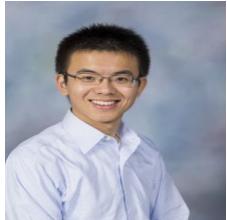
Noah Harding Assistant Professor of Computer Science, Rice University



Anastasios “Tasos” Kyrillidis, assistant professor of CS, earned his Ph.D. in computer and communication sciences from the École Polytechnique Fédérale de Lausanne (EPFL) in 2014. He received a five-year diploma and master’s degree in electronic and computer engineering from the Technical University of Crete in 2008 and 2010, respectively. Kyrillidis’ CS Ph.D. adviser, Volkan Cevher, worked as a Rice Research Scientist prior to joining EPFL.

Meng Li

Noah Harding Assistant Professor of Statistics, Rice University



Meng Li’s research focuses on developing statistical methodology and scalable algorithms for challenging data that arises in scientific and industrial applications such as images, functional data, networks and trees-structured data. His current research interests include probabilistic image/signal processing, quantile regression, Bayesian inference, multiscale modeling, functional data analysis, neuroimaging and Brain network analysis. He received his PhD in statistics from the Department of Statistics at North Carolina State University in 2015. He was a Visiting Assistant Professor in the Department of Statistical Science at Duke University (2015-2017). Meng joined Rice as a Noah Harding Assistant Professor of Statistics in July 2017.

Ankit B. Patel

Assistant Professor of Neuroscience, Baylor College of Medicine

Assistant Professor of Electrical and Computer Engineering, Rice University



Patel is a faculty member at the Baylor College of Medicine in the Dept. of Neuroscience, with a courtesy appointment in the ECE Dept. at Rice University. Previously, he was a Research Scientist at Rice University, focusing on deep machine learning and computational neuroscience. Patel graduated from Harvard with a Ph.D. in Applied Mathematics, advised by [Radhika Nagpal](#).

His undergraduate degree was in Computer Science and Applied Mathematics (BA, MS, Harvard 2002). Patel spent 6 years in industry working on real-time inference systems, including 2 years at MIT Lincoln Laboratory (2002-2004) and 4 years as a Quantitative Trader at Global Electronic Trading Corporation (2008-12) — a high-frequency market-making firm that is now a part of KCG Holdings. His current work tries to shed new light on the successes (and shortcomings) of techniques in modern Deep Learning.

Xaq Pitkow

Assistant Professor, Neuroscience, Baylor College of Medicine

Assistant Professor of Electrical and Computer Engineering, Rice University



Xaq's primary focus is on developing theories of the computational functions of neural networks, especially how they compute properties of the world using ambiguous sensory evidence. He was trained in physics as an undergraduate student at Princeton, and went on to study biophysics at Harvard. There he joined the neuroscience lab of Markus Meister, conducting experiments on retinal processing, and developing theory of cortical circuits in collaboration with Haim Sompolinsky. After his Ph.D. he took a postdoctoral position in the Center for Theoretical Neuroscience at Columbia to work with Ken Miller, and then moved to the University of Rochester to work as a postdoc with Alex Pouget in the department of Brain and Cognitive Sciences. In 2013 he moved to Houston to become a faculty member jointly at the Baylor College of Medicine and Rice University, in the departments of Neuroscience and Electrical and Computer Engineering.

Elizabeth Roberto

Assistant Professor, Sociology, Rice University



I am an Assistant Professor in the Department of Sociology at Rice University. I have broad research interests in social and spatial inequality, a substantive focus on residential segregation, and methodological expertise in computational social science and quantitative methods.

My research integrates a classic sociological interest in the social organization of cities and the development of innovative methods to address fundamental questions about the spatial structure of residential segregation, the causes and consequences of segregation at different geographic scales, and the role of the built environment in

segregation processes.

I was awarded a James S. McDonnell Foundation Postdoctoral Fellowship Award in Studying Complex Systems, which funded my postdoctoral research at the Department of Sociology at Princeton University. I received a Ph.D. in Sociology from Yale University , and a B.A. and M.P.A. from George Washington University. I have previously held positions as a Presidential Management Fellow and Research Analyst at the U.S. Department of Transportation, Brookings Institution, and Government Accountability Office.

Ashu Sabharwal

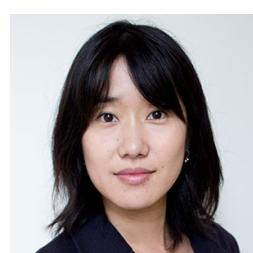
Professor, Electrical and Computer Engineering, Rice University



Professor Sabharwal is chair of the ECE Corporate Affiliates program and past director of the Center for Multimedia Communication (CMC). He has been faculty fellow and postdoctoral research associate at Rice University. Throughout his years at Rice, he has been involved in several large research projects focused on wireless networking and supported by funding from NSF, Nokia, Texas Instruments and Intel Corporation. Dr. Sabharwal received his B.Tech in 1993 from IIT – New Delhi, and his M.S. and Ph.D. degrees in Electrical Engineering from The Ohio State University in 1995 and 1999, respectively.

Akane Sano

Assistant Professor, Electrical and Computer Engineering, Rice University



Akane Sano is a Research Scientist at Affective Computing Group, MIT Media Lab and a Visiting Scientist at People-Aware Computing Lab, Cornell University. She will be joining Rice University as an Assistant Professor of Electrical and Computer Engineering and of Computer Science in July 2018. Her research focuses on mobile health and affective computing. She has been working on measuring and understanding stress, sleep, mood and performance from ambulatory human long-term data and designing intervention systems to help people be aware of their behaviors and improve their health conditions. She completed her Ph.D. at the MIT Media Lab in 2015. Before she came to MIT, she worked for Sony Corporation as a researcher and software engineer on wearable computing, human computer interaction and personal health care.

Santiago Segarra

Assistant Professor, Electrical & Computer Engineering, Rice University



I am an Assistant Professor in the Department of Electrical and Computer Engineering at Rice University. In 2016 I completed my PhD at The University of Pennsylvania in the department of Electrical and Systems Engineering with Prof. Alejandro Ribeiro as my advisor. After that, I spent almost two years as a Postdoctoral Research Associate at the Institute for Data, Systems, and Society at MIT. Before moving to the U.S. for my graduate studies, I lived in Argentina, where I received my Industrial Engineering Bachelor Degree from the Instituto Tecnológico de Buenos Aires (ITBA) in 2011. My research interests include: Network Theory, Optimization, Machine Learning, and Signal Processing.

Anshumali Shrivastava

Assistant Professor, Computer Science, Rice University



Anshumali Shrivastava is an Assistant Professor in the Department of Computer Science at Rice University with joint appointments in Statistics and ECE department. His broad research interests include large scale machine learning, randomized algorithms for big data systems and graph mining. His research on hashing inner products won Best Paper Award at NIPS 2014 while his work on representing graphs got the Best Paper Award at IEEE/ACM ASONAM 2014. He obtained his Ph. D. in computer science from Cornell University. Before joining Cornell, he worked as a scientist at FICO research Bangalore, India.

Anshumali's undergraduate major was mathematics and computing from Indian Institute of Technology (IIT) Kharagpur.

Devika Subramanian

Professor of Computer Science and of Electrical and Computer Engineering, Rice University



Devika Subramanian received her PhD in Computer Science from Stanford University in 1989, working with Professors Bruce Buchanan, Michael Genesereth and Nils Nilsson. She obtained her Bachelors degree in Computer Science and Electrical Engineering from the Indian Institute of Technology, India. She served as an Assistant Professor of Computer Science at Cornell University from Fall 1989 to Spring of 1995. Since the Fall of 1995, she has been at Rice University, where she is a tenured Professor of Computer Science.

Her research interests are in artificial intelligence and machine learning and their applications in computational systems biology, neuroscience of human learning, assessments of hurricane risks, network analysis of power grids, mortality prediction in cardiology, conflict forecasting and analysis of terrorist networks, and analysis of unstructured text data.

Christopher Tunnell

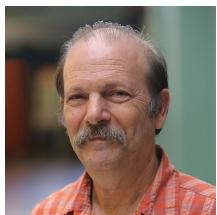
Assistant Professor of Physics & Astronomy and of Computer Science, Rice University

Joined Rice summer 2018.



Moshe Y. Vardi

Karen Ostrum George Distinguished Service Professor, Computer Science, Rice University



Moshe Y. Vardi is Karen Ostrum George Distinguished Service Professor in Computational Engineering and Director of the Ken Kennedy Institute for Information Technology. His interests focus on automated reasoning, a branch of Artificial Intelligence with broad applications to computer science, including database theory, computational-complexity theory, knowledge in multi-agent systems, computer-aided verification, and teaching logic across the curriculum.

Marina Vannucci

Noah Harding Professor and Chair, Statistics, Rice University



Dr. Vannucci received a Laurea (B.S.) in Mathematics in 1992 and a Ph.D. in Statistics in 1996, both from the University of Florence, Italy. Prior to joining Rice in 2007, she was Research Fellow at the University of Kent at Canterbury, UK, during 1996-1998. In 1998 she joined the Department of Statistics at Texas A&M University, TX, as Assistant Professor, became Associate Professor in 2003 and Full Professor in 2005. Dr. Vannucci is currently an adjunct faculty member of the UT M.D. Anderson Cancer Center, TX, and the Rice Director of the Interinstitutional Graduate Program in Biostatistics. She also holds an Honorary appointment at the University of Liverpool, UK. Dr. Vannucci was the recipient of an NSF CAREER award in 2001 and won the Mitchell prize from the International Society for

Bayesian Analysis in 2003. She is an elected Member of the International Statistical Institute (ISI), since 2007, and an elected Fellow of the American Statistical Association (ASA), since 2006, the Institute of Mathematical Statistics (IMS), since 2009, the American Association for the Advancement of Science (AAAS), since 2012, and the International Society for Bayesian Analysis (ISBA), since 2014. Dr. Vannucci served as Editor-in-Chief for the journal Bayesian Analysis in 2013-2015. She has published over 110 research papers and has delivered more than 150 invited presentations. She has supervised 17 Ph.D. students and 8 postdoctoral fellows, since 1998.

Ashok Veeraraghavan

Assistant Professor of Electrical and Computer Engineering, Rice University



Dr. Veeraraghavan is an Assistant Professor of Electrical and Computer Engineering Department at Rice University. He received B.Tech. in electrical engineering from Indian Institute of Technology, Madras in 2002, and master's and Ph.D. from the Department of Electrical and Computer Engineering at the University of Maryland, in College Park in 2004 and 2008, respectively. Ashok joined the ECE Department in 2010. His research interests are in computational imaging, compressive sensing for imaging, signal processing and computer vision.