

Introducing Our New Faculty

Almost 50 years since its founding as a department and 15 years since its establishment as an independent school, the Donald Bren School of Information and Computer Sciences at UC Irvine continues on a path of unprecedented growth.

As of fall 2017, undergraduate enrollment exceeds 3,000 students, more than doubling within five years. Our computer science major is one of the five largest programs on campus, and our data science major is the fastest-growing program in the school with an incoming cohort of about 70 students. Graduate enrollment exceeds 500 students, with our professional master's programs in computer science and human-computer interaction and design enrolling close to 150 new students. Despite their rapid growth, our programs are more selective than ever and continue enrolling exceptional students, with five of them receiving NSF Graduate Fellowships in academic year 2016-17.

Mirroring student growth, our faculty has grown to record levels, with the number of tenured/tenure-track faculty and lecturers in the school surpassing 95 in fall 2017. Hiring in the departments of computer science and statistics has emphasized the broader space of data science, leveraging the school's traditional strengths in machine learning to expand in the areas of data integration, information extraction, natural language processing, Bayesian modeling and nonparametric Bayesian methods. Informatics has been investing in the space of digital media and learning, advancing a new area of excellence for the school.

I am pleased to introduce the faculty who joined the Bren School in calendar year 2017. Emphasizing its strategic priorities in the areas of data science and digital media and learning, these outstanding researchers and educators will be instrumental in moving the school forward as it continues to lead in the exploration of computing technologies and the ways in which they revolutionize the world around us.



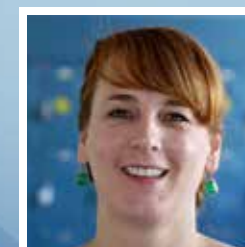
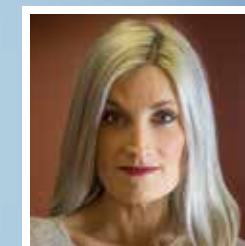
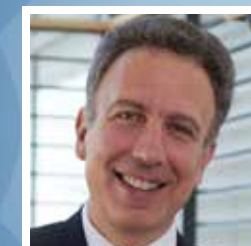
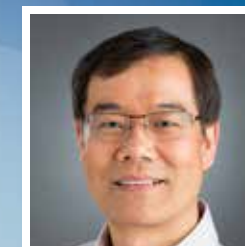
Marios C. Papaefthymiou
Professor of Computer Science
Ted and Janice Smith Family Foundation Dean

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UCI Donald Bren School of
Information & Computer Sciences

New Faculty 2017



University of California, Irvine



Ray Klefstad

Professor of Teaching, Computer Science
Ph.D., Information and Computer Science, 1988, UC Irvine

Klefstad's research is in the areas of compilers, operating systems, distributed computing, real-time computing, embedded systems, middleware, object-oriented design, design patterns and object-oriented programming languages. He has served as a full-time lecturer, assistant adjunct professor and researcher at UCI for more than 20 years. As a proud alumnus of the Donald Bren School of Information and Computer Sciences, Klefstad was recently recognized as UCI's 2017 Lecturer of the Year before advancing to the position of professor of teaching, which he began in September 2017.



Marios C. Papaefthymiou

Professor of Computer Science & Dean
Ph.D., Electrical Engineering and Computer Science, 1993, MIT

Papaefthymiou's research interests are in design technologies for energy-efficient computers. He holds 21 U.S. and international patents on energy-efficient computing and is co-founder and chief scientist of Cyclos Semiconductor, a Michigan spin-off commercializing energy-efficiency solutions for high-performance microprocessors. He joined ICS as the third dean of the school in January 2017 after more than 20 years on the faculty at the University of Michigan, where he served as chair of computer science and engineering from July 2011 to December 2016.



Erik Sudderth

Associate Professor of Computer Science
Ph.D., Electrical Engineering and Computer Science, 2006, MIT

Sudderth's research interests include probabilistic graphical models, nonparametric Bayesian methods, and applications of statistical machine learning in computer vision and the sciences. He has received an NSF CAREER award, the ISBA Mitchell Prize, and was named one of "AI's 10 to Watch" by *IEEE Intelligent Systems* magazine. His Learning, Inference & Vision Group develops statistical methods for scalable machine learning, with applications in AI, vision and the natural and social sciences. Sudderth joined the ICS faculty in January 2017 after spending seven years at Brown University, where he remains an adjunct associate professor of computer science.

Vladimir Minin

Professor of Statistics
Ph.D., Biomathematics, 2007, UCLA

Minin is interested in developing rigorous solutions to problems that arise in biological sciences. These solutions often involve formulating stochastic models that can describe complex dynamics of biological systems and devising computationally efficient algorithms to fit these models to data. Minin is currently most active in infectious disease epidemiology, working on Bayesian estimation of disease transmission model parameters, and in computational immunology, working on statistical methods to analyze high throughput sequence data of B-cell receptors. His other interests include phylogenetics, population genetics and systems biology. He joined the ICS faculty in July 2017.



Kurt Squire

Professor of Informatics
Ph.D., Instructional Systems Technology, 2004, Indiana University

Squire runs the participatory learning lab and his team investigates how video game-based technologies might create systemic change in education. Squire's research has been supported by nearly \$10 million in grants and gifts from the MacArthur Foundation, NSF, NIH, the Gates Foundation, the Department of Education, the AMD Foundation, and Microsoft. His work has led to the development of learning games, augmented reality learning platforms, and tools used by hundreds of thousands of learners around the world. He is a fellow of the Higher Education Video Game Alliance. He joined ICS in January 2017.



Katie Salen Tekinbaş

Professor of Informatics
MFA, Graphic Design, 1992, Rhode Island School of Design

Salen Tekinbaş' research interests are in the connections between game design, learning and transformative modes of play. She has worked as a game designer for more than a decade and was the founding executive director of Institute of Play, an education nonprofit focused on games and learning. She is also co-founder and chief designer of Connected Camps, an online learning platform powered by youth Minecraft experts. She has worked on a range of projects for Microsoft, FremantleMedia, Gamelab and The Design Institute. Salen Tekinbaş joined the ICS faculty in September 2017.



Bin Nan

Professor of Statistics
Ph.D., Biostatistics, 2001, University of Washington

Nan's research interests are in various areas of statistics and biostatistics, including semiparametric inference, failure time and survival analysis, longitudinal data, missing data and two-phase sampling designs, and high-dimensional data analysis. He is collaborating in many studies in areas of epidemiology, bioinformatics and brain imaging, particularly in cancer, HIV, women's health and neurodegenerative diseases. He is a fellow of both the American Statistical Association and the Institute of Mathematical Statistics, and is an elected member of the International Statistical Institute. He joined the ICS faculty in September 2017.



Constance Steinkuehler

Professor of Informatics
Ph.D., Literacy Studies, 2005, University of Wisconsin–Madison

Steinkuehler's research is on video games, culture and cognition in the context of commercial, educational and esports titles. Her work has been funded by the MacArthur Foundation, the National Academy of Education/Spencer Foundation, the Gates Foundation and NSF. From 2011-12, she served as senior policy analyst in the White House Office of Science and Technology Policy (OSTP) where she advised on national initiatives related to games. Steinkuehler is a founding fellow and president of the Higher Education Video Game Alliance. She joined the ICS faculty in January 2017.



Vijay Vazirani

Distinguished Professor of Computer Science
Ph.D., Computer Science, 1983, UC Berkeley

Vazirani has made seminal contributions to the theory of algorithms, in particular to the classical maximum matching problem, approximation algorithms and complexity theory. He has also contributed widely to an algorithmic study of economics and game theory for more than 15 years. In 2001, Vazirani published *Approximation Algorithms*, which is widely regarded as the definitive book on the subject. He also co-edited a comprehensive volume on *Algorithmic Game Theory* in 2007. Vazirani is a Guggenheim Fellow and an ACM Fellow. He joined the ICS faculty, coming from Georgia Tech, in September 2017.