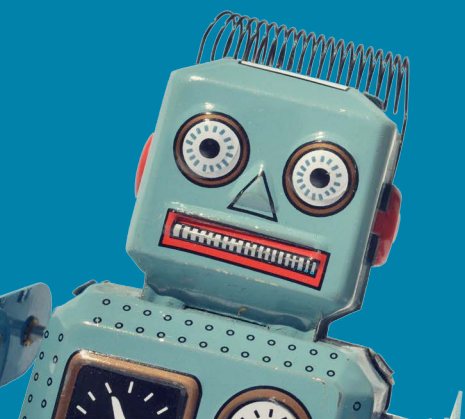


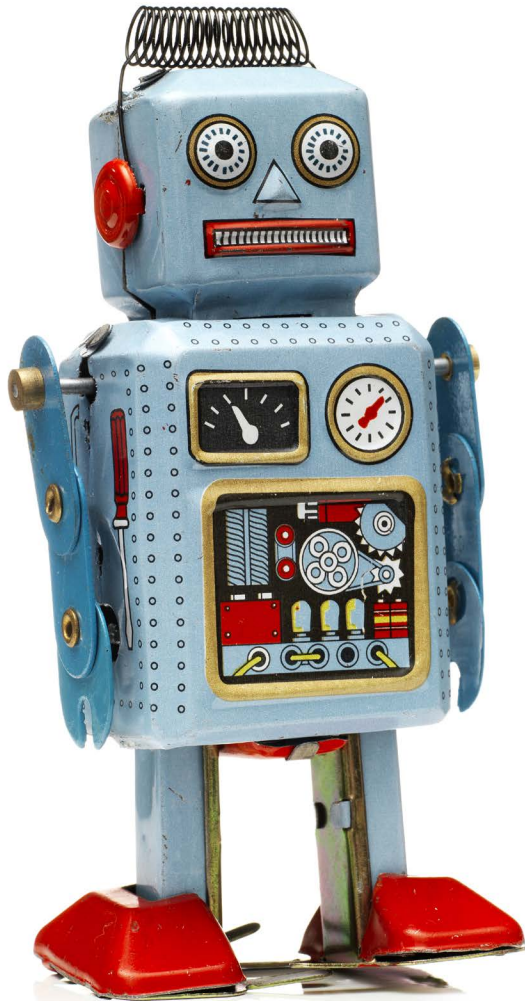
2017 Computing@PNNL
FACULTY SUMMIT



Participant
BIOSKETCHES

June 14-15, 2017


Pacific Northwest
NATIONAL LABORATORY



Enrico BERTINI



Enrico Bertini is an Assistant Professor at the NYU Polytechnic School of Engineering in the Department of Computer Science and Engineering. His research focuses on the study of effective data visualization methods and techniques to explore and make sense of large and often high-dimensional data. He also studies how to communicate complex ideas effectively through visual data presentation. His research has been applied to several application domains including: biochemistry, cybersecurity, development, healthcare, climate science, human rights. Professor Bertini earned his PhD degree in Computer Engineering at Sapienza University of Rome in Italy. Before joining NYU he was a Research Scientist at the University of Fribourg, Switzerland and the University of Konstanz, Germany. He is part of the organizing and program committee of the IEEE VIS conference, the premier conference in the field, and he is one of the founders of the BELIV workshop series on evaluation methods in visualization. He is also the editor of felinlovewithdata.com and datastori.es, respectively a popular blog and podcast on visualization and data analysis.

Asli CELIKYILMAZ



Asli Celikyilmaz is a Researcher at the Deep Learning Research Center at Microsoft Research. Previously she was a Senior Research Scientist at Microsoft Bing. She was a Postdoc Researcher at the Department of Electrical Engineering and Computer Sciences at UC Berkeley from 2008 until 2010. She received her Ph.D. from the University of Toronto, Canada in 2008. In her research, she focuses on interactive learning algorithms relating to understanding natural language. Her research includes topics relating to interactive and incremental learning for teaching machines to understand language using deep reinforcement learning and memory networks, building deep learning technologies for human to machine conversational dialog systems. She has over one hundred publications in conferences and journals on natural language processing, machine learning, and deep learning.

Duen Horng (Polo) CHAU



Duen Horng (Polo) Chau is an Assistant Professor at Georgia Tech, in the School of Computational Science and Engineering. He co-directs the MS Analytics program.

His research bridges data mining and human-computer interaction (HCI) to create scalable interactive tools for making sense of massive datasets and solving real world problems. His Ph.D. in Machine Learning from Carnegie Mellon University won Carnegie Mellon University's Computer Science Dissertation Award, Honorable Mention.

He received faculty awards from Google, Yahoo, and the LexisNexis Group; Raytheon Faculty Fellowship; Edenfield Faculty Fellowship; Outstanding Junior Faculty Award; Symantec fellowship (twice); Best Student Paper Awards at the 2014 Society for Industrial and Applied Mathematics (SIAM) International Conference on Data Mining and the 22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining (runner-up). He has published over 100 refereed articles.

He is a steering committee member of the Association for Computing Machinery's Intelligent User Interfaces (ACM IUI) conference, IUI'15 co-chair, and IUI'19 program co-chair.

His research led to deployed technologies by Facebook, Symantec (protects 120M people from malware), and Atlanta Fire Rescue Department; he holds 3 patents. His security and fraud detection research made headlines.

Jordi DUCH



Jordi Duch earned his BSc in Computer Science at University Rovira Virgili (Spain), MSc at Universidad de Murcia (Spain), PhD in the Department of Physics at Universitat de Barcelona (Spain), and Post-doc in the Department of Chemical and Biological Engineering at Northwestern University (USA). He is an Associate Professor of Computer Science at University Rovira Virgili, and a Visiting Professor in the Northwestern Institute of Complex Systems and at the Electrical Engineering and Computer Science department of Northwestern University. His work is focused on three research lines: (i) the understanding of the structure of a complex system and its interplay with the dynamical processes that take place in the system, (ii) how to design experiments and use data analytics to identify and quantify patterns of social behavior, and (iii) how to use the internet's structure information to create better solutions for internet security. In these areas, he has published more than 20 papers in high impact journals, some of them with more than 1000 citations.

Alex ENDERT



Alex Endert is an Assistant Professor in the School of Interactive Computing at Georgia Tech. He directs the Visual Analytics Lab, where he and his students explore novel user interaction techniques for visual analytics. His lab often applied this fundamental research to applied domains including text analysis, intelligence analysis, cyber security, decision-making, and others. He is an active contributor to venues for human-computer interaction and information visualization (ACM CHI, IEEE VIS, IEEE TVCG, IEEE CG&A). He received his Ph.D. in Computer Science at Virginia Tech in 2012, advised by Dr. Chris North. In 2013, his work on Semantic Interaction was awarded the IEEE VGTC VPG Pioneers Group Doctoral Dissertation Award, and the Virginia Tech Computer Science Best Dissertation Award.

Joseph W. HOUPT



Joseph W. Houpt is currently an Assistant Professor at Wright State University in Dayton, Ohio. He received a BS in Mathematics from the University of Utah, a MS in Artificial Intelligence from the University of Edinburgh, and a Ph.D. in Psychology and Cognitive Science from Indiana University. He has authored 23 peer reviewed journal articles, including two of the top 25 most cited articles in the Journal of Mathematical Psychology, many book chapters and conference papers, and co-edited a recently published two-volume set on mathematical models of cognition and perception.

His research focus is on applying mathematical modeling for understanding cognitive and perceptual processes and for measuring human performance. Much of this research is performed using Systems Factorial Technology (SFT), a methodology for assessing the basic characteristics of cognitive processing. His main contribution so far has been to formalize the statistical properties of the SFT measures. This includes both nonparametric frequentist and Bayesian approaches to inferences using the survivor interaction contrast, a test for cognitive processing architecture, and the capacity coefficient, an index of processing efficiency under increased workload.

Brian NORD



Brian Nord studies galaxies and their patterns across the universe to probe the nature of dark energy. In particular, he searches large data sets for gravitational lenses—astronomical objects in which galaxy shapes are distorted by warped space-time. He uses them to measure how much (dark) matter is in the universe and how fast the universe is expanding.

Nord's computational work focuses on big astronomical data and the application of machine/deep learning to classification and measurement of astronomical phenomena like strong lenses.

He is a Postdoctoral researcher at the Fermi National Accelerator Laboratory in Batavia, Illinois, and he currently works on the Dark Energy Survey (DES), a five-year endeavor to measure nearly half a billion galaxies in an effort to study dark energy. Nord also works in science communication and issues of data science in society. You can find him on Twitter at @iamstarnord.

Jason YOSINSKI



Jason Yosinski is a machine learning researcher and founding member of Uber AI Labs, where he uses neural networks and machine learning to build more capable and more understandable artificial intelligence (AI). He suspects that scientists and engineers will build increasingly powerful AI systems faster than we can understand them, motivating much of his work on what has been called “AI Neuroscience”—an emerging field that may become increasingly important in the next several years. Mr. Yosinski was previously a PhD student and NASA Space Technology Research Fellow working at the Cornell Creative Machines Lab, the University of Montreal, the Caltech Jet Propulsion Laboratory, and Google DeepMind.

His work on AI has been featured on National Public Radio (NPR), Fast Company, the Economist, TEDx, and on the British Broadcasting Corporation (BBC).

