

CMU FACULTY

Lenore Blum, PhD, is Distinguished Career Professor of Computer Science at Carnegie Mellon and Founding Director of Project Olympus, an innovation center fostering very early stage student and faculty enterprises. She is internationally recognized for her work in increasing the participation of girls and women in STEM fields. Her research—founding a theory of computation and complexity over continuous domains—forms a theoretical basis for scientific computation.

Dave Mawhinney, MBA, is Executive Director of the Donald H. Jones Center for Entrepreneurship, Managing Director of the Open Field Entrepreneurs Fund, and Director of the i6 Agile Innovation System. He is also Assistant Teaching Professor in the Tepper School of Business at Carnegie Mellon. Dave has a wealth of entrepreneurial experience, having co-founded mSpoke, which was acquired by LinkedIn, as well as a number of other startups.

J. Zico Kolter, PhD, is Assistant Professor in the Computer Science Department and the Computation, Organizations, and Society program in the School of Computer Science. His research focuses on sustainable energy domains, with a focus on core learning, inference, and control tasks within this space, with applications including energy disaggregation, wind turbine control, large-scale resource forecasting, and smart grid planning and control.

Noah Smith, PhD, is Finmeccanica Associate Professor of Language Technologies and Machine Learning in the School of Computer Science. His research interests, covered in his book Linguistic Structure Prediction, include statistical natural language processing, especially unsupervised methods, machine learning for structured data, and applications of natural language processing.

Ian Lane, PhD, is Research Assistant Professor in Electrical and Computer Engineering and the Language Technologies Institute, working in the areas of speech recognition, machine learning, and spoken language understanding. He leads the speech processing efforts at CMU Silicon Valley and is PI of the CUDA Center of Excellence at CMU.

Adrien Treuille, PhD, is Assistant Professor of Computer Science and Robotics at Carnegie Mellon University. One research thread seeks model-reduction approaches to complex phenomena such as animal morphology, human motion, and large fluid systems. A complimentary thread addresses complex scientific challenges through multiplayer online games such as Foldit (protein folding) and Eterna (nano-engineering).

The Carnegie Mellon Center for Innovation and Entrepreneurship (CIE)

Our center, established in fall 2012, builds on the strengths of Project Olympus and the Don Jones Center for Entrepreneurship to advance university research and ideas. We work with our colleagues to create meaningful and lasting contributions to Carnegie Mellon's entrepreneurial mission, contributions that enhance the innovation ecosystem throughout the campuses, within western Pennsylvania, and beyond. The CIE assists faculty, students, staff, and alumni in exploring the commercial potential of their innovations.

www.cmu.edu/cie

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Launch!CMU
A Research and Entrepreneurship Showcase

Presented by

LATHAM & WATKINS LLP

Tuesday, May 21, 2013

1:00 to 6:00 p.m.

Computer History Museum

Mountain View, CA

Through the generous support of

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1:00 OPENING REMARKS

Bruce McWilliams, *President and CEO, SuVolta; member of CMU Board of Trustees*
Patrick Pohlen, *Partner & Global Co-Chair, Emerging Companies Practice Group, Latham & Watkins LLP*

1:10 CMU FACULTY RESEARCH IN BIG DATA AND MACHINE LEARNING

Lenore Blum, *Co-director, Center for Innovation and Entrepreneurship*

Computational Methods for Sustainable Energy

J. Zico Kolter www.cs.cmu.edu/~zkolter

Assistant Professor of Computer Science and Software Research

Sustainable energy presents one of the chief challenges facing society, and computational methods can play a role in transforming how we understand and optimize energy. This talk will highlight some of the ongoing research using machine learning and data analysis techniques to tackle key challenges in sustainable energy systems.

Text and Social Context

Noah Smith www.cs.cmu.edu/~nasmith

Finmeccanica Associate Professor of Language Technologies and Machine Learning

This talk will review statistical analyses of large-scale text datasets, including social media, exploring how language varies with social variables, and how we can use text to forecast social outcomes in scientific and political domains.

Accelerating Speech Analytics

Ian Lane www.cs.cmu.edu/~ianlane

Research Assistant Professor, CMU Silicon Valley

Over the past two years, large-scale machine learning approaches such as Deep-Networks have dramatically improved the accuracy of large vocabulary speech recognition. This talk will review the state-of-the-art in speech recognition and speech-analytic technologies and present recent work in GPU-accelerated machine learning and speech recognition for large-scale speech-analytics and related tasks.

Crowdsourcing: Future of Labor

Adrien Treuille www.cs.cmu.edu/~treuille

Assistant Professor of Computer Science and Robotics

This talk will present experiences creating large-scale crowdsourcing projects, which have involved hundreds of thousands of non-expert gamers in the search for scientific truth. His talk will go over the implications and challenges of this new crowdsourcing approach, not only on a technological level, but also on educational, legal, and economic levels.

3:00 CMU CENTER FOR INNOVATION AND ENTREPRENEURSHIP

Lenore Blum, *Co-director, Center for Innovation and Entrepreneurship*
Dave Mawhinney, *Co-director, Center for Innovation and Entrepreneurship*

3:10 BIG DATA AND MACHINE LEARNING STARTUPS FROM CMU

Paul Wellener IV, *Lead University Principal, Deloitte*

Lumator www.lumator.com

Prashant Reddy (*MS in Machine Learning, '12; PhD in Machine Learning, '13*)

Lumator provides intelligent automated services that optimize how residential consumers buy and use electricity. Most consumers do not exploit savings opportunities that result from deregulated electricity markets. Lumator uses proprietary machine learning technology to solve this problem and address a \$1.5B, steadily growing market.

3Gear Systems www.threegear.com

Rob Wang (*BS in Computer Science, '04*)

Christopher Twigg (*PhD in Computer Science, '08*)

At 3Gear, we believe that the future of human computer interaction isn't a better mouse. We're developing technology that lets you use all ten of your fingers and both of your hands to interact with a computer like you interact with the real world. Our first product is a "lamp" that understand your gestures.

Peekabuy www.peekabuy.com

Henry Kang (*MS in Robotics, '09; PhD in Robotics, '12*)

Peekabuy connects visual data, such as images and videos, with e-commerce by leveraging computer vision and machine learning techniques. What you see is what you can buy!

Solvvy www.solvvy.com

Mehdi Samadi (*PhD in Computer Science, '13*)

Justin Betteridge (*MS in Language Technologies, '06; PhD in Language Technologies, '13*)

Solvvy is an intelligent problem solving assistant that uses a unique combination of natural language processing and artificial intelligence technology to understand a problem, no matter how complex, then find solutions on the Web and rank them based on relevance and credibility.

Fliptop www.fliptop.com

Doug Camplejohn (*BS in Electrical Engineering, '88; MSIA, '88*)

Fliptop's Customer Intelligence Platform leverages external web and social data along with internal CRM and marketing application data in order to help companies close more sales.

2:00-3:00 BREAKOUT SESSIONS WITH CMU FACULTY RESEARCHERS

4:00-5:00 BREAKOUT SESSIONS WITH CMU STARTUPS

5:00-6:00 NETWORKING RECEPTION IN THE GRAND LOBBY
