Tonight’s Agenda

6:30 p.m.
Doors Open & Networking

7:00 p.m.
Announcements

7:15 p.m.
Saving Power in the Data Center

8:00 p.m.
ICS Overview

8:30 p.m.
Meeting Adjourned
About ICS

- Founded in 1968 as a Department of Information and Computer Science
- Established in 2002 as an independent school, the Donald Bren School of Information and Computer Sciences
- Only computing-focused school in the UC system, and one of the few in the U.S.
- Three departments:
  - Computer Science
  - Informatics
  - Statistics
- Undergraduate enrollment: 2,889
- Graduate enrollment: 461
- Over 80 faculty and 9,000 alumni
Undergraduate Programs

MAJORS
- Computer Science
- Data Science
- Informatics
- Computer Game Science
- Software Engineering
- Computer Science & Engineering (joint with Engineering)
- Business Information Management (joint with Business)

MINORS
- Bioinformatics
- Digital Information Systems
- Health Informatics
- Informatics
- Information and Computer Science
- Statistics
Graduate Programs

- Research (M.S., Ph.D.)
  - Computer Science
  - Informatics
  - Statistics
  - Networked Systems
  - Software Engineering

- Professional Master’s
  - Master of Human-Computer Interaction & Design *(Started Fall 2016)*
  - Master of Computer Science *(Starts Fall 2017)*
  - Master of Embedded & Cyber-Physical Systems *(ICS & Engineering, Starts Fall 2017)*
Faculty Data (F16)

Faculty Count (TT/Lec)

<table>
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<tr>
<th>Discipline</th>
<th>TT</th>
<th>Lec</th>
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<tr>
<td>Computer Science</td>
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<td>Informatics</td>
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<td>4</td>
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<tr>
<td>Statistics</td>
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- 1 Member of the National Academy of Engineering
- 5 Fellows of the American Association for the Advancement of Science (AAAS)
- 13 Fellows of the Association for Computing Machinery (ACM)
- 7 Fellows of the Institute of Electrical and Electronics Engineers (IEEE)
- 3 Fellows of the American Statistical Association (ASA)
Recent Student Accomplishments

1st in SoCal regionals of ACM International Collegiate Programming Contest in fall 2016

Five ICS students receive NSF Graduate Research Fellowships 2016-17

Senior Emily Nguyen will be joining Pinterest this summer as a KPCB Engineering Fellow
ICS Research Areas

- Biostatistics and bioinformatics
- Bayesian statistics
- Data science
- Artificial intelligence/Machine learning
- Theory of computation
- Embedded systems
- Databases & software systems (OS, PL, networking)
- Visual computing
- Human-computer interaction
- Digital media and learning
- Software engineering
ICS Research Centers

CAMPUS CENTERS (headquartered in ICS)
- Data Science Initiative
- Cybersecurity Policy and Research Institute
- Institute for Genomics and Bioinformatics
- Institute for Software Research
- Institute for Virtual Environments and Computer Games
- Intel Science and Technology Center for Social Computing (*ended 2015*)

SCHOOL CENTERS
- Center for Algorithms and Theory of Computation
- Center for Computer Games and Virtual Worlds
- Center for Emergency Response Technologies
- Center for Machine Learning and Intelligent Systems
- Laboratory for Ubiquitous Computing and Interaction
- Secure Computing and Networking Center
Launch of the Data Science Initiative

- **Launched July 2014**
- **Graduate education**
  - 1-day short courses on data analysis programming (Python, R), data management, and predictive modeling
  - Certificate in Data Science from the UCI Graduate Division
- **Mini-symposia on emerging interdisciplinary research topics with significant data-driven components**
- **New Data Science major at UCI launched in Fall 2015**
- **$3M NSF Research Training Grant awarded in Fall 2016**
CPRI & IVECG

CYBERSECURITY POLICY AND RESEARCH INSTITUTE (CPRI)
• Focus on legal, policy and technology issues in combatting cyber threats while protecting and enhancing individual privacy and civil liberties.

INSTITUTE FOR VIRTUAL ENVIRONMENTS AND COMPUTER GAMES (IVECG)
• Understand and create technology and applications that transform how we see the world through immersive visualization and virtual tours
• Interact and socialize with global communities
• Communicate and collaborate with colleagues in virtual collaborative space
• Provide medical care and training to remote corners of the world
INSTITUTE FOR GENOMICS AND BIOINFORMATICS (IGB)
• Foster innovative basic and applied research in genomics and bioinformatics
• Work with established companies, start-ups, government agencies and standards bodies to develop and transition these technologies to widespread and practical application.

INSTITUTE FOR SOFTWARE RESEARCH (ISR)
• Advance software and information technology through research partnerships
• Educate the next generation of software researchers and practitioners in advanced software technologies.
Looking Forward

➢ Grow
   - Hire 30 new faculty in 5 years [~10 open searches for AY17-18]
   - Emphasis on Big Data (statistics, machine learning, data management systems, software systems)
   - Further build on other strengths: human-computer interaction, software engineering, digital media and learning

➢ Leverage other units on UCI campus
   - Life sciences: medical school, biological sciences, nursing
   - Engineering, physical sciences, social sciences

➢ Strengthen industry partnerships and promote entrepreneurship
   - Capstone projects (senior year, professional master’s)
   - Research engagement (institutes, advanced short courses)
   - Tech transfer (recruiting relationships, licensing, spinoffs)
   - Community (seminars, open houses, alumni engagement)