



Association for  
Computing Machinery

*Advancing Computing as a Science & Profession*

**EMBARGOED UNTIL  
DECEMBER 8, 2016 at 8 AM (EST)**

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**ACM 2016 FELLOWS RECOGNIZED FOR ADVANCES THAT ARE  
TRANSFORMING SCIENCE AND SOCIETY**

**Achievements of 2016 Fellows Include Advances in  
Human-Computer Interaction, Artificial Intelligence and Cryptography**

**NEW YORK, NY**, December 8, 2016 – ACM, the world’s leading computing society, has named 53 of its members as ACM Fellows for major contributions in areas including artificial intelligence, cryptography, computer architecture, high performance computing and programming languages. The achievements of the [2016 ACM Fellows](#) are accelerating the digital revolution, and affect almost every aspect of how we live and work today.

“As nearly 100,000 computing professionals are members of our association, to be selected to join the top one percent is truly an honor,” explains ACM President Vicki L. Hanson. “Fellows are chosen by their peers and hail from leading universities, corporations and research labs throughout the world. Their inspiration, insights and dedication bring immeasurable benefits that improve lives and help drive the global economy.”

Underscoring ACM’s global reach, 2016 Fellows hail from organizations in Australia, Austria, Canada, China, France, India, Israel, Italy, The Netherlands, Switzerland, the United Kingdom and the United States.

The 2016 Fellows have been cited for numerous contributions in areas including cloud computing, computer security, data science, Internet routing and security, large-scale distributed computing, mobile computing, spoken-language processing and theoretical computer science.

ACM will formally recognize its 2016 Fellows at the annual Awards Banquet, to be held in San Francisco on June 24, 2017. Additional information about the 2016 ACM Fellows, the awards event, as well as previous ACM Fellows and award winners is available at <http://awards.acm.org/>.

## 2016 ACM Fellows

### **Noga Alon**

Tel Aviv University

*For contributions in the study of expander graphs, derandomization and streaming algorithms.*

### **Paul Barford**

University of Wisconsin

*For contributions to Internet measurement and analysis.*

### **Luca Benini**

Swiss Federal Institute of Technology, Zurich and Università di Bologna

*For contributions to the design of low power multi-processor systems.*

### **Ricardo Bianchini**

Microsoft Research

*For contributions to power, energy and thermal management of servers and datacenters.*

### **Stephen Blackburn**

Australian National University

*For contributions to memory management in programming languages.*

### **Dan Boneh**

Stanford University

*For contributions to cryptography and computer security.*

### **Carla E. Brodley**

Northeastern University

*For applications of machine learning and for increasing participation of women in computer science.*

### **Justine Cassell**

Carnegie Mellon University

Language Technologies Institute

*For contributions to human-computer interaction and advocacy for empowerment and voice through technology.*

### **Erik Demaine**

Massachusetts Institute of Technology

*For contributions to geometric computing, data structures and graph algorithms.*

### **Allison Druin**

University of Maryland

*For contributions to creating information and computing technologies with and for children.*

### **Fredo Durand**

Massachusetts Institute of Technology

*For contributions to computational photography and computer graphics rendering.*

### **Nick Feamster**

Princeton University

*For data-driven studies of Internet security and Internet censorship.*

### **Jason Flinn**

University of Michigan

*For contributions to mobile computing and reliable distributed systems.*

### **William Freeman**

Massachusetts Institute of Technology

*For contributions to low-level computer vision, machine learning and computer graphics.*

### **Yolanda Gil**

University of Southern California

*For leadership in advancing the use of artificial intelligence in support of science, and for service to the community.*

### **Robert L. Grossman**

University of Chicago and Open Data Group

*For contributions to data science, data intensive computing and data mining.*

### **Rajesh K. Gupta**

University of California, San Diego

*For contributions in design of embedded systems and hardware-software codesign.*

### **James Hendler**

Rensselaer Polytechnic Institute

*For contributions to artificial intelligence and the development of the semantic web.*

### **Monika Henzinger**

Universität Wien

*For contributions to computer theory and its practical application.*

**Tony Hey**

The Science and Technology Facilities  
Council's Rutherford Appleton Laboratory  
*For leadership in high performance computing and  
eScience.*

**Xuedong Huang**

Microsoft AI and Research  
*For contributions to spoken language processing.*

**Daniel Jackson**

Massachusetts Institute of Technology  
*For contributions to software modeling and the  
creation of the modeling language Alloy.*

**Robert J.K. Jacob**

Tufts University  
*For contributions to human-computer interaction,  
particularly new interaction modes and novel user  
interface software formalisms.*

**Somesh Jha**

University of Wisconsin  
*For contributions to verification, programming  
languages, and software engineering.*

**Ravi Kannan**

Microsoft Research  
*For contributions to the field of theoretical computer  
science.*

**Anne-Marie Kermarrec**

Mediego/Inria  
*For contributions to large-scale distributed  
computing.*

**Martin Kersten**

Centrum Wiskunde & Informatica  
*For the design and implementation of column-store  
and main-memory database systems.*

**Christoforos Kozyrakis**

Stanford University  
*For contributions to transactional memory and data  
center architecture.*

**Marta Kwiatkowska**

University of Oxford  
*For contributions to the theory and practice of  
probabilistic verification.*

**James Landay**

Stanford University  
*For contributions to human-computer interaction,  
with a focus on user interface design tools and  
ubiquitous computing.*

**K. Rustan M. Leino**

Microsoft Research  
*For contributions to making program verification  
accessible and practical.*

**J. Bryan Lyles**

Oak Ridge National Laboratory  
*For contributions to Internet infrastructure  
technology, measurement and research.*

**Todd C. Mowry**

Carnegie Mellon University  
*For contributions to software prefetching and thread-  
level speculation.*

**Trevor Mudge**

University of Michigan, Ann Arbor  
*For contributions to power aware computer  
architecture.*

**Sharon Oviatt**

Incaa Designs  
*For contributions to the empirical and theoretical  
foundations of multimodal systems, and to human-  
centered computer interfaces.*

**Venkata N. Padmanabhan**

Microsoft Research India  
*For research contributions and professional  
leadership in networked and mobile computing  
systems.*

**Shwetak Patel**

University of Washington  
*For contributions to sustainability sensing, low-  
power wireless sensing and mobile health.*

**David Peleg**

The Weizmann Institute of Science  
*For contributions to distributed computing and graph  
algorithms.*

**Radia Perlman**

Dell-EMC  
*For contributions to the theory and practice of  
Internet routing and bridging protocols.*

**Adrian Perrig**

ETH Zurich

*For contributions in protocols for network and system security.***Ganesan Ramalingam**

Microsoft Research India

*For contributions to static program analysis.***Louiqa Raschid**

University of Maryland

*For data management and integration in non-traditional domains including biomedicine, finance and humanitarian applications.***Holly Rushmeier**

Yale University

*For work on global illumination, material capture and display of high-dynamic-range images.***Michael Saks**

Rutgers, The State University of New Jersey

*For contributions to computational complexity, theory of distributed computing, and design & analysis of algorithms***Sachin S. Sapatnekar**

University of Minnesota

*For contributions to the enhancement of performance and reliability in integrated circuits.***Abigail Sellen**

Microsoft Research

*For contributions to human-computer interaction and the design of human-centered technology.***Sudipta Sengupta**

Microsoft Research

*For contributions to cloud networking, storage, and data management.***Andre Seznec**

INRIA

*For contributions to branch prediction and cache memory design.***Valerie E. Taylor**

Texas A&amp;M University

*For leadership in broadening participation in computing.***Carlo Tomasi**

Duke University

*For contributions in computer vision.***Paul Van Oorschot**

Carleton University

*For contributions to applied cryptography, authentication and computer security.***Manuela M. Veloso**

Carnegie Mellon University

*For contributions to the field of artificial intelligence, in particular in planning, learning, multi-agent systems, and robotics.***Zhi-Hua Zhou**

Nanjing University

*For contributions to machine learning and data mining.***About ACM**

ACM, the Association for Computing Machinery ([www.acm.org](http://www.acm.org)) is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

**About the ACM Fellows Program**

[The ACM Fellows Program](#), initiated in 1993, celebrates the exceptional contributions of the leading members in the computing field. These individuals have helped to enlighten researchers, developers, practitioners and end users of information technology throughout the world. The new ACM Fellows join a distinguished list of colleagues to whom ACM and its members look for guidance and leadership in computing and information technology.

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