Association for Computing Machinery

Advancing Computing as a Science & Profession

NEWS RELEASE

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ACM RECOGNIZES 2017 FELLOWS FOR MAKING TRANSFORMATIVE CONTRIBUTIONS AND ADVANCING TECHNOLOGY IN THE DIGITAL AGE

Innovators Honored for Seminal Work in Areas Including Artificial Intelligence, Bioinformatics, Computer Graphics, Cloud Computing, and Software Engineering

NEW YORK, NY, December 11, 2017 – ACM, the Association for Computing Machinery, has named 54 members ACM Fellows for major contributions in areas including database theory, design automation, information retrieval, multimedia computing and network security. The accomplishments of the 2017 ACM Fellows lead to transformations in science and society. Their achievements play a crucial role in the global economy, as well as how we live and work every day.

"To be selected as a Fellow is to join our most renowned member grade and an elite group that represents less than 1 percent of ACM's overall membership," explains ACM President Vicki L. Hanson. "The Fellows program allows us to shine a light on landmark contributions to computing, as well as the men and women whose tireless efforts, dedication, and inspiration are responsible for groundbreaking work that improves our lives in so many ways."

Underscoring ACM's global reach, the 2017 Fellows hail from universities, companies and research centers in Canada, China, Denmark, Germany, Switzerland, the United Kingdom and the United States.

The 2017 Fellows have been cited for numerous contributions in areas including artificial intelligence, big data, computer architecture, computer graphics, high performance computing, human-computer interaction, sensor networks, wireless networking and theoretical computer science.

ACM will formally recognize its 2017 Fellows at the annual Awards Banquet, to be held in San Francisco on June 23, 2018. Additional information about the 2017 ACM Fellows, the awards event, as well as previous ACM Fellows and award winners, is available at http://awards.acm.org/.

2017 ACM Fellows

Lars Birkedal
Aarhus University
For contributions to the semantic and logical foundations of compilers and program verification systems

Edouard Bugnion
EPFL
For contributions to virtual machines

Margaret Burnett
Oregon State University
For contributions to end-user software engineering, understanding gender biases in software, and broadening participation in computing

Shih-Fu Chang
Columbia University
For contributions to large-scale multimedia content recognition and multimedia information retrieval

Edith Cohen
Google Research
For contributions to the design of efficient algorithms for networking and big data

Dorin Comaniciu
Siemens Healthcare
For contributions to machine intelligence, diagnostic imaging, image-guided interventions, and computer vision

Susan M. Dray
Dray & Associates
For co-founding ACM SIGCHI and disseminating exemplary user experience design and evaluation practices worldwide

Edward A. Fox
Virginia Tech
For contributions in information retrieval and digital libraries

Richard M. Fujimoto
Georgia Institute of Technology
For contributions to parallel and distributed discrete event simulation

Shafi Goldwasser
Massachusetts Institute of Technology
For transformative work that laid the complexity-theoretic foundations for the science of cryptography

Carla P. Gomes
Cornell University
For establishing the field of computational sustainability, and for foundational contributions to artificial intelligence

Martin Grohe
RWTH Aachen University
For contributions to logic in computer science, database theory, algorithms, and computational complexity

Aarti Gupta
Princeton University
For contributions to system analysis and verification techniques and their transfer to industrial practice

Venkatesan Guruswami
Carnegie Mellon University
For contributions to algorithmic coding theory, pseudorandomness and the complexity of approximate optimization

Dan Gusfield
University of California, Davis
For contributions to combinatorial optimization and to algorithmic computational biology

Gregory D. Hager
Johns Hopkins University
For contributions to vision-based robotics and to computer-enhanced interventional medicine

Steven Michael Hand
Google
For contributions to virtual machines and cloud computing

Mor Harchol-Balter
Carnegie Mellon University
For contributions to performance modeling and analysis of distributed computing systems

Laxmikant Kale
University of Illinois at Urbana-Champaign
For development of new parallel programming techniques and their deployment in high performance computing applications

Michael Kass
NVIDIA
For contributions to computer vision and computer graphics, particularly optimization and simulation

Angelos Dennis Keromytis
DARPA
For contributions to the theory and practice of systems and network security

Carl Kesselman
University of Southern California
For contributions to high performance computing, distributed systems, and scientific data management

Edward Knightly
Rice University
For contributions to multi-user wireless LANs, wireless networks for underserved regions, and cross-layer wireless networking

Craig Knoblock
University of Southern California
For contributions to artificial intelligence, semantic web, and semantic data integration

Insup Lee
University of Pennsylvania
For theoretical and practical contributions to compositional real-time scheduling and runtime verification

Wenke Lee
Georgia Institute of Technology
For contributions to systems and network security, intrusion and anomaly detection, and malware analysis

Li Erran Li
Uber Advanced Technologies Group
For contributions to the design and analysis of wireless networks, improving architectures, throughput, and analytics

Gabriel H. Loh
Advanced Micro Devices, Inc.
For contributions to die-stacking technologies in computer architecture

Tomás Lozano-Pérez
Massachusetts Institute of Technology
For contributions to robotics, and motion planning, geometric algorithms, and their applications

Clifford A. Lynch
Coalition for Networked Information
For contributions to library automation, information retrieval, scholarly communication, and information policy

Yi Ma
University of California, Berkeley
For contributions to theory and application of low-dimensional models for computer vision and pattern recognition

Andrew K. McCallum
University of Massachusetts at Amherst
For contributions to machine learning with structured data, and innovations in scientific communication

Silvio Micali
Massachusetts Institute of Technology
For transformative work that laid the complexity-theoretic foundations for the science of cryptography

Andreas Moshovos
University of Toronto
For contributions to high-performance architecture including memory dependence prediction and snooping coherence

Gail C. Murphy
The University of British Columbia
For contributions to recommenders for software engineering and to program comprehension

Onur Mutlu
ETH Zurich
For contributions to computer architecture research, especially in memory systems

Nuria Oliver
Vodafone/Data-Pop Alliance
For contributions in probabilistic multimodal models of human behavior and uses in intelligent, interactive systems

Balaji Prabhakar
Stanford University
For developing algorithms and systems for large-scale data center networks and societal networks

Tal Rabin
IBM Research
For contributions to foundations of cryptography, including multi-party computations, signatures, and threshold and proactive protocol design

K. K. Ramakrishnan
University of California, Riverside
For contributions to congestion control, operating system support for networks and virtual private networks

Ravi Ramamoorthi
University of California San Diego
For contributions to computer graphics rendering and physics-based computer vision

Yvonne Rogers
University College London
For contributions to human-computer interaction and the design of human-centered technology

Yong Rui
Lenovo Group
For contributions to image, video and multimedia analysis, understanding and retrieval

Bernhard Schölkopf
Max Planck Institute for Intelligent Systems
For contributions to the theory and practice of machine learning

Steven M. Seitz
University of Washington, Seattle
For contributions to computer vision and computer graphics

Michael Sipser
Massachusetts Institute of Technology
For contributions to computational complexity, particularly randomized computation and circuit complexity

Anand Sivasubramaniam
Penn State University
For contributions to power management of datacenters and high-end computer systems

Mani B. Srivastava
University of California, Los Angeles
For contributions to sensor networks, mobile personal sensing, and cyber-physical systems

Alexander Vardy
University of California San Diego
For contributions to the theory and practice of error-correcting codes and their study in complexity theory

Geoffrey M. Voelker
University of California San Diego
For contributions to empirical measurement and analysis in systems, networking and security

Martin D. F. Wong
University of Illinois at Urbana-Champaign
For contributions to the algorithmic aspects of electronic design automation (EDA)

Qiang Yang
Hong Kong University of Science and Technology
For contributions to artificial intelligence and data mining

ChengXiang Zhai
University of Illinois at Urbana-Champaign
For contributions to information retrieval and text data mining

Aidong Zhang
State University of New York at Buffalo
For contributions to bioinformatics and data mining

About ACM
ACM, the Association for Computing Machinery (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 (http://awards.acm.org/fellows/) 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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