



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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