



Association for
Computing Machinery

Advancing Computing as a Science & Profession

NEWS RELEASE

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2019 ACM FELLOWS RECOGNIZED FOR FAR-REACHING ACCOMPLISHMENTS THAT DEFINE THE DIGITAL AGE

Computing Professionals Honored for Foundational Work in Diverse Areas

New York, NY, December 11, 2019 – ACM, the Association for Computing Machinery, has named 58 members ACM Fellows for wide-ranging and fundamental contributions in areas including artificial intelligence, cloud computing, combating cybercrime, quantum computing and wireless networking. The accomplishments of the [2019 ACM Fellows](#) underpin the technologies that define the digital age and greatly impact our professional and personal lives. ACM Fellows comprise an elite group that represents less than 1% of the Association’s global membership.

“Computing technology has had a tremendous impact in shaping how we live and work today,” said ACM President Cherri M. Pancake in announcing the 2019 ACM Fellows. “All of the technologies that directly or indirectly influence us are the result of countless hours of collaborative and/or individual work, as well as creative inspiration and, at times, informed risk-taking. Each year, we look forward to welcoming some of the most outstanding individuals as Fellows. The ACM Fellows program is a cornerstone of our overall recognition effort. In highlighting the accomplishments of the ACM Fellows, we hope to give credit where it is due, while also educating the public about the extraordinary array of areas in which computing professionals work.”

Underscoring ACM’s global reach, the 2019 Fellows hail from universities, companies and research centers in Australia, Canada, China, Egypt, France, Germany, Israel, Italy, Switzerland, and the United States.

The contributions of the 2019 Fellows run the gamut of the many sub-disciplines of the computing field—including artificial intelligence, cloud computing, computer graphics, computational biology, data science, security and privacy, software engineering, quantum computing, and web science, to name a few.

ACM will formally recognize its 2019 Fellows at the annual Awards Banquet, to be held in San Francisco on June 20, 2020. Additional information about the 2019 ACM Fellows, as well as previously named ACM Fellows, is available through the [ACM Fellows site](#).

2019 ACM Fellows

Scott J. Aaronson

University of Texas

For contributions to quantum computing and computational complexity

Tarek F. Abdelzaher

University of Illinois at Urbana-Champaign

For interdisciplinary contributions that bridge cyber-physical systems, social sensing, real-time computing, and control

Saman Amarasinghe

Massachusetts Institute of Technology

For contributions to high performance computing on modern hardware platforms, domain-specific languages, and compilation techniques

Kavita Bala

Cornell University

For contributions to rendering and scene understanding

Magdalena Balazinska

University of Washington

For contributions to scalable distributed data systems

Paul Beame

University of Washington

For contributions in computational and proof complexity and their applications, and for outstanding service

Emery D. Berger

University of Massachusetts Amherst

For contributions in memory management and programming language implementation

Ronald F. Boisvert

National Institute of Standards and Technology

For contributions to mathematical software and service to the profession

Christian Cachin

University of Bern

For contributions to secure distributed computing and cryptographic protocols

Brad Calder

Google

For contributions to cloud storage, processor simulation, replay, and feedback-directed optimization of systems and applications

Diego Calvanese

Free University of Bozen-Bolzano

For contributions to description logics and their applications in data management and software engineering

Srdjan Capkun

Swiss Federal Polytechnic, Zurich

For contributions to systems and wireless network security

Claire Cardie

Cornell University

For contributions to natural language processing, including coreference resolution, information and opinion extraction

Timothy M. Chan

University of Illinois at Urbana-Champaign

For contributions to computational geometry, algorithms, and data structures

Kanianthra Mani Chandy

California Institute of Technology

For contributions to queueing networks, performance analysis, distributed and parallel programming, and distributed simulation

Xilin Chen

Institute of Computing Technology, Chinese Academy of Sciences

For contributions to face and sign language recognition and multimedia systems

Elizabeth F. Churchill

Google

For contributions to human-computer interaction and service to ACM

Philip R. Cohen

Monash University

For contributions to the theory and practice of multi-agent systems, human-computer dialogue, and multimodal interaction

Vincent Conitzer

Duke University

For contributions to game theory, social choice theory, and mechanism design

Noshir Contractor

Northwestern University

For contributions to advances in computational social science, network science and web science

Matthew B. Dwyer

University of Virginia

For contributions to the specification and analysis of software

Elena Ferrari

University of Insubria

For contributions to security and privacy of data and social network systems

Michael J. Freedman

Princeton University

For contributions to robust distributed systems for the modern cloud

Deborah Frincke

US National Security Agency

For contributions in education, the practice of research, and the leadership of cybersecurity

Lise Getoor

University of California, Santa Cruz

For contributions to machine learning, reasoning under uncertainty, and responsible data science

Maria L. Gini

University of Minnesota

For contributions to robotics and multi-agent systems and a lifelong commitment to diversity in computing

Subbarao Kambhampati

Arizona State University

For contributions to automated planning and human-aware AI systems and leadership within the field

Tamara G. Kolda

Sandia National Laboratories

For innovations in algorithms for tensor decompositions, contributions to data science, and community leadership

Xiang-Yang Li

University of Science and Technology of China

For contributions to the design, analysis and optimization of IoT and mobile systems

Songwu Lu

University of California, Los Angeles

For helping create a more resilient and performant cellular network

Wendy Elizabeth Mackay

Inria

For contributions to human-computer interaction, mixed reality and participatory design, and leadership in ACM SIGCHI

Diana Marculescu

University of Texas at Austin

For contributions to the design and optimization of energy-aware computing systems

Sheila McIlraith

University of Toronto

For contributions to knowledge representation and its applications to automated planning and semantic web services

Rada Mihalcea

University of Michigan

For contributions to natural language processing, with innovations in data-driven and graph-based language processing

Robin R. Murphy

Texas A&M University

For contributions in founding and advancing the field of computing for disasters and robotics

Marc Najork

Google

For contributions to web search and web science

Jason Nieh

Columbia University

For contributions to operating systems, virtualization, and computer science education

Hanspeter Pfister

Harvard University

For contributions to volume rendering, visualization, computer graphics, and computer vision applications

Timothy M. Pinkston

University of Southern California

For contributions to interconnection network routing algorithms and architectures, and leadership in expanding computing research

Mihai Pop

University of Maryland, College Park

For contributions to computational biology, algorithms, and software for DNA sequence analysis and sequence assembly

Andreas Reuter

Heidelberg University/Heidelberg Laureate

Forum Foundation

For contributions to database concurrency control and for service to the community

Jeffrey S. Rosenschein

Hebrew University

For contributions to multi-agent systems, in particular, the use of game theory in multi-agent systems

Srinivasan Seshan

Carnegie Mellon University

For contributions to computer networking, mobile computing and wireless communications

Prashant J. Shenoy

University of Massachusetts Amherst

For contributions to the modeling and design of distributed systems

Peter W. Shor

Massachusetts Institute of Technology

For contributions to quantum computing, information theory, and randomized algorithms

Mona Singh

Princeton University

For contributions to computational biology, spearheading algorithmic and machine learning approaches for characterizing proteins and their interactions

Ramesh K. Sitaraman

University of Massachusetts Amherst

For contributions to content delivery networks, distributed systems, and scalable Internet services

Dawn Song

University of California, Berkeley

For contributions to security and privacy

Salvatore J. Stolfo

Columbia University

For contributions to machine-learning-based cybersecurity and parallel hardware for database inference systems

Dacheng Tao

The University of Sydney

For contributions to representation learning and its applications

Moshe Tennenholtz

Technion

For contributions to AI and algorithmic game theory

Giovanni Vigna

University of California, Santa Barbara

For contributions to improving the security of the Internet and combating cybercrime

Nisheeth K. Vishnoi

Yale University

For contributions to theoretical computer science and its connections with mathematics, sciences, and social sciences

Darrell Whitley

Colorado State University

For technical and professional leadership in the field of genetic and evolutionary computation

Yuan Xie

University of California, Santa Barbara

For contributions to the design techniques and tools for the implementation and evaluation of computer architectures

Moustafa Amin Youssef

Alexandria University

For contributions to location tracking algorithms

Carlo A. Zaniolo

University of California, Los Angeles

For contributions to the theory and practice of data and knowledge-base systems

Lidong Zhou

Microsoft Research Asia

For contributions to trustworthy distributed computing and to systems research and education in China

About ACM

[ACM, the Association for Computing Machinery](#) 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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