



Association for
Computing Machinery

Advancing Computing as a Science & Profession

News Release

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ACM NAMES 71 FELLOWS FOR COMPUTING ADVANCES THAT ARE DRIVING INNOVATION

Innovators Honored for Work in Areas Including Algorithms, Education, Cryptography, Security and Privacy, Medical Informatics, and Networks

New York, NY, January 19, 2022 – ACM, the Association for Computing Machinery, has named 71 members ACM Fellows for wide-ranging and fundamental contributions in areas including algorithms, computer science education, cryptography, data security and privacy, medical informatics, and mobile and networked systems – among many other areas. The accomplishments of the [2021 ACM Fellows](#) underpin important innovations that shape the technologies we use every day.

The ACM Fellows program recognizes the top 1% of ACM Members for their outstanding accomplishments in computing and information technology and/or outstanding service to ACM and the larger computing community. Fellows are nominated by their peers, with nominations reviewed by a distinguished selection committee.

“Computing professionals have brought about leapfrog advances in how we live, work, and play,” said ACM President Gabriele Kotsis. “New technologies are the result of skillfully combining the individual contributions of numerous men and women, often building upon diverse contributions that have emerged over decades. But technological progress would not be possible without the essential building blocks of individual contributors. The ACM Fellows program honors the creativity and hard work of ACM members whose specific accomplishments make broader advances possible. In announcing a new class of Fellows each year, we celebrate the impact ACM Fellows make, as well as the many technical areas of computing in which they work.”

In keeping with ACM’s global reach, the 2021 Fellows represent universities, corporations, and research centers in Belgium, China, France, Germany, India, Israel, Italy, and the United States.

The contributions of the 2021 Fellows run the gamut of the computing field—including cloud database systems, deep learning acceleration, high performance computing, robotics, and theoretical computer science – to name a few.

Additional information about the 2021 ACM Fellows, as well as previously named ACM Fellows, is available through the [ACM Fellows website](#).

2021 ACM Fellows

Leonard Adleman

Retired

For contributions to making public-key cryptography useful in practice

David A. Bader

New Jersey Institute of Technology

For contributions to high-performance computing systems, graph analytics, and technical leadership in parallel computing

Meenakshi Balakrishnan

Indian Institute of Technology, Delhi

For contributions to system-level design, embedded systems and assistive technologies for the visually impaired

Nikolaj Björner

Microsoft Research

For contributions to SMT solvers and network verification

Mark Braverman

Princeton University

For contributions to computational complexity, information theory, and algorithmic mechanism design

Linda Jean Camp

Indiana University

For contributions to computer security and e-crime measures

Edward Y. Chang

Stanford University

For contributions to scalable machine learning and healthcare

Tanzeem Choudhury

Cornell Tech, Optum Labs (UnitedHealth Group)

For contributions to mobile systems for behavioral sensing and health interventions

Daniel Cohen-Or

Tel Aviv University

For contributions to computer graphics, geometry processing, and visual computing

Gautam Das

University of Texas at Arlington

For contributions to database search and graph algorithms

Anind Dey

Information School, University of Washington

For contributions to ubiquitous computing and large-scale behavioral studies

Lieven Eeckhout

Ghent University

For contributions in computer architecture performance analysis and modeling

Martín Farach-Colton

Rutgers University

For contributions to data structures for biocomputing and big data

Amos Fiat

Tel Aviv University

For contributions to cryptography, online algorithms, and algorithmic game theory

Hubertus Franke

IBM Research

For contributions to the communication, concurrency and resource control in parallel systems

Batya Friedman

University of Washington

For contributions to human values in the technical design process

Evgeniy Gabrilovich

Google

For contributions to the acquisition, representation, and dissemination of web-knowledge with applications to the medical domain

Judith Gal-Ezer

Open University of Israel

For contributions to research and implementation in computer science education

Deepak Ganesan

University of Massachusetts Amherst
For contributions to ultra-low power wireless sensing systems

Anupam Gupta

Carnegie Mellon University
For contributions to approximation algorithms, online algorithms, stochastic algorithms. and metric embeddings

Zygmunt J. Haas

University of Texas at Dallas
For contributions to communication and security protocols for ad hoc and sensor networks.

Elad Hazan

Princeton University
For contributions to efficient algorithms for convex and nonconvex optimization

Xiaobo Sharon Hu

University of Notre Dame
For contributions to the design of power-constrained and real-time embedded systems

Paola Inverardi

University of L'Aquila
For contributions to software architecture

Zachary Ives

University of Pennsylvania
For contributions to data integration, sharing, and management for scientific applications

Sushil Jajodia

George Mason University
For contributions to cyber security, data protection, and privacy

Ranjit Jhala

University of California San Diego
For contributions to software verification

David R. Kaeli

Northeastern University
For contributions to computer architecture and compilers

Jonathan Katz

University of Maryland
For contributions to cryptographic protocol design and cryptography education

Robert Kleinberg

Cornell University
For contributions to online learning and decision problems

Thomas Lengauer

MPI for Informatics / Saarland University
For contributions to bioinformatics and medical informatics

Hai "Helen" Li

Duke University
For contributions to neuromorphic computing and deep-learning acceleration

Feifei Li

Alibaba Cloud
For contributions to query processing and optimization and to cloud database systems

Ninghui Li

Purdue University
For contributions to data privacy, access control, and trust management

Tie-Yan Liu

Microsoft Research Asia
For contributions to machine learning algorithms and their applications

Steve Marschner

Cornell University
For contributions to modeling the appearance of physical materials

Matthew T. Mason

Carnegie Mellon University
For contributions to robotic manipulation and manipulation path planning

Dale A. Miller

Inria Saclay
For contributions to proof theory and computational logic

Elchanan Mossel

MIT

For contributions to theoretical computer science and inference

Bernhard Nebel

Albert-Ludwigs Universität

For contributions to knowledge representation and reasoning, automatic planning, and their applications in robotics

Rafail Ostrovsky

UCLA

For contributions to the foundations of cryptography

Joël Ouaknine

Max Planck Institute for Software Systems

For contributions to algorithmic analysis of dynamical systems

David Z. Pan

The University of Texas at Austin

For contributions to electronic design automation, including design for manufacturing and physical design

Rosalind W. Picard

MIT Media Lab

For contributions to physiological signal sensing for individual health and wellbeing

Shaz Qadeer

Novi, Meta

For contributions to software verification, software testing, and programming languages

Glenn Ricart

US Ignite

For leadership in creating advanced research infrastructure, including the first Internet interconnection point

Tajana Rosing

University of California San Diego

For contributions to power, thermal, and reliability management

Robert B. Ross

Argonne National Laboratory

For contributions to high-performance computing in storage and parallel I/O

Szymon Rusinkiewicz

Princeton University

For contributions to acquisition, representation, analysis, rendering, and fabrication of 3D models

Pierangela Samarati

Università degli Studi di Milano, Italy

For contributions to data security and privacy

Sunita Sarawagi

IIT Bombay

For contributions to statistical machine learning for information analysis, extraction, and integration

Bernt Schiele

MPI for Informatics / Saarland University

For contributions to large-scale object recognition, human detection, and pose estimation

Mubarak Ali Shah

University of Central Florida

For contributions to human action recognition in video and leadership for undergraduate research experience

Alla Sheffer

University of British Columbia

For contributions to geometry processing, mesh parameterization, and perception-driven shape analysis and modeling

Munindar P. Singh

North Carolina State University

For contributions to artificial intelligence and multiagent systems and their applications in service-oriented computing and sociotechnical systems

Aravinda Prasad Sistla

University of Illinois Chicago

For contributions to verifying concurrent programs, probabilistic systems, security, and database systems

Scott Smolka

Stony Brook University

For contributions in process algebra, model checking, and runtime verification

Jie Tang

Tsinghua University

For contributions to information and social network mining

Mark Tehranipoor
University of Florida
For contributions to microelectronics security and trust

Luca Trevisan
Bocconi University
For contributions to complexity theory and combinatorial optimization

Wenping Wang
Texas A&M University
For contributions to geometric modeling and computer graphics

Brent Waters
University of Texas Austin & NTT Research
For contributions to cryptography

Ryen W. White
Microsoft Research
For contributions to information retrieval, human-computer interaction, and computational health

Jacob O. Wobbrock
University of Washington
For contributions to human-computer interaction and accessible computing

Tao Xie
Peking University
For contributions to software testing and analytics

Ming-Hsuan Yang
University of California Merced, Google, Yonsei University
For contributions to visual tracking, face processing, and low-level vision

Mohammed Zaki
Rensselaer Polytechnic Institute
For contributions to data mining algorithms and foundations

Ben Yanbin Zhao University of Chicago
For contributions to peer-to-peer systems and online social networks

Lin Zhong
Yale University
For contributions to mobile and network systems

Shlomo Zilberstein
University of Massachusetts at Amherst
For contributions to automated planning, resource-bounded reasoning, and multi-agent systems

Thomas Zimmermann
Microsoft Research
For contributions to mining software repositories and defect prediction

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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