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 70 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

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 Chang
Stanford University
For contributions to scalable machine learning and healthcare

Tanzeem Choudhury
Cornell Tech
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

Martin 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 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 San Diego, California
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
Max Planck Society
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, automated reasoning, and their application to robotics

Bjorner Nikolaj
Microsoft Research
For contributions to SMT solvers and network verification

Rafail Ostrovsky
UCLA
For contributions to the foundations of cryptography

Joel 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 in 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, Facebook
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 at 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 P. Sistla
University of Illinois at Chicago
For contributions to verifying concurrent programs, probabilistic systems, security, and database systems

Scott Smolka
Stonybrook 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
Yonsei University, Google, University of California, Merced
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 Y. 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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