NEWS RELEASE

Contact: Jim Ormond
212-626-0505
ormond@hq.acm.org

2023 ACM FELLOWS CELEBRATED FOR CONTRIBUTIONS TO COMPUTING THAT UNDERPIN OUR DAILY LIVES


New York, NY, January 24, 2024 – ACM, the Association for Computing Machinery, has named 68 Fellows for transformative contributions to computing science and technology. All the 2023 inductees are longstanding ACM Members who were selected by their peers for groundbreaking innovations that have improved how we live, work, and play.

“The announcement each year that a new class of ACM Fellows has been selected is met with great excitement,” said ACM President Yannis Ioannidis. “ACM is proud to include nearly 110,000 computing professionals in our ranks and ACM Fellows represent just 1% of our entire global membership. This year’s inductees include the inventor of the World Wide Web, the ‘godfathers of AI,’ and other colleagues whose contributions have all been important building blocks in forming the digital society that shapes our modern world.”

In keeping with ACM’s global reach, the 2023 Fellows represent universities, corporations, and research centers in Canada, China, Germany, India, Israel, Norway, Singapore, the United Kingdom, and the United States. The contributions of the 2023 Fellows run the gamut of the computing field—including algorithm design, computer graphics, cybersecurity, energy-efficient computing, mobile computing, software analytics, and web search, to name a few.

Additional information about the 2023 ACM Fellows, as well as previously named ACM Fellows, is available through the ACM Fellows website.

2023 ACM FELLOWS

Aditya Akella
University of Texas
For contributions that improve the performance, efficiency, and robustness of cluster computing
Michael Backes
CISPA
For contributions to information security and privacy

Vineet Bafna
University of California, San Diego
For contributions to the theory, design, and implementation of bioinformatics algorithms

Yoshua Bengio
Mila, Université de Montréal
For conceptual and engineering breakthroughs that have made deep neural networks a critical component of computing

Maria-Florina Balcan
Carnegie Mellon University
For contributions to the foundations of machine learning and its applications to algorithmic economics and algorithm design

Nikhil Bansal
University of Michigan
For contributions to the foundations of approximate and online algorithms, and their connections to mathematics

Mikhail Belkin
University of California San Diego
For contributions to modern machine learning theory and algorithms

Shai Ben-David
University of Waterloo
For contributions to and research leadership in machine learning theory

Vaughn Timothy Betz
University of Toronto
For contributions to the architecture and computer-aided design of field-programmable gate arrays (FPGAs)

Ramon Caceres
Google
For contributions to mobile and edge computing

Chandra Chekuri
University of Illinois, Urbana-Champaign
For contributions to approximation algorithms and submodular optimization

Haibo Chen
Shanghai Jiao Tong University
For contributions to improving the scalability and security of operating systems and distributed systems

Yingying (Jennifer) Chen
Rutgers University
For contributions to the design and application of mobile sensing and mobile security systems

Kenneth Ward Church
EAI, Northeastern University
For contributions to empirical methods in natural language processing
Roger B. Dannenberg  
*Carnegie Mellon University*  
For contributions to the field of computer science through innovative computer music systems

Xin Luna Dong  
*Meta*  
For contributions to knowledge graph construction and data integration

Rolf Drechsler  
*University of Bremen*  
For contributions to foundations and applications of formal proof techniques in synthesis, test, and verification

Wenliang Du  
*Syracuse University*  
For contributions to cybersecurity education and research

Pradeep Dubey  
*Intel Corporation*  
For contributions to emerging compute- and data-intensive applications and parallel processing computer architectures

Anja Feldmann  
*Max Planck Institute and TU Berlin*  
For contributions to the data-driven analysis of operational networks

George Fitzmaurice  
*Autodesk Canada, Inc.*  
For contributions to human-computer interaction and tangible user interfaces

Fedor Fomin  
*University of Bergen*  
For contributions to the development of parameterized complexity and exact exponential algorithms

Jeffrey S. Foster  
*Tufts University*  
For contributions to program analysis and techniques to build more reliable and secure software

Jianfeng Gao  
*Microsoft*  
For contributions to machine learning for web search, natural language processing, and conversational systems

Ian Goldberg  
*University of Waterloo*  
For contributions to the development and deployment of privacy enhancing technologies

Sumit Gulwani  
*Microsoft*  
For contributions to AI-assisted programming for developers, data scientists, end users, and students

Zhu Han  
*University of Houston*  
For contributions to distributed and autonomous management for large-scale communication networks
Geoffrey Hinton  
*University of Toronto*  
For conceptual and engineering breakthroughs that have made deep neural networks a critical component of computing

Nicole Immorlica  
*Microsoft Research*  
For contributions to economics and computation including market design, auctions, and social networks

Trent Jaeger  
*Pennsylvania State University*  
For contributions to research and education for operating systems and software security

Kenneth Richard Koedinger  
*Carnegie Mellon University*  
For the advancement of AI models of human learning and developing intelligent tutors to aid students

Andreas Krause  
*ETH Zurich*  
For contributions to learning-based decision making under uncertainty

Christopher Ian Kruegel  
*University of California Santa Barbara*  
For contributions to systems security, malware detection, and vulnerability analysis

H.T. Kung  
*Harvard University*  
For contributions to computer architecture and concurrency control for parallel computation

Yann LeCun  
*New York University*  
For conceptual and engineering breakthroughs that have made deep neural networks a critical component of computing

Tim Berners-Lee  
*WWW Consortium*  
For inventing the World Wide Web, the first web browser, and the fundamental protocols and algorithms allowing the Web to scale

David Lo  
*Singapore Management University*  
For contributions to synergizing artificial intelligence and software engineering for human-in-the-loop automation and software analytics

Wenjing Lou  
*Virginia Tech*  
For contributions to information and network security

Kwan-Liu Ma  
*University of California, Davis*  
For contributions to and leadership in large-scale data visualization research

Wei-Ying Ma  
*Tsinghua University*  
For leadership and contributions to web search and data mining
Z. Morley Mao  
*University of Michigan*  
For contributions to Internet security and performance

Deborah McGuinness  
*Rensselaer Polytechnic Institute*  
For contributions to knowledge technologies including ontologies and knowledge graphs

Gerard G. Medioni  
*Amazon*  
For contributions to computer vision and its consumer facing applications

Sharad Mehrotra  
*University of California, Irvine*  
For contributions to the fields of data management, multimedia information retrieval, and emergency response

Seffi Naor  
*Technion—Israel Institute of Technology*  
For contributions to online, randomized, and approximation algorithms

Shrikanth Narayanan  
*University of Southern California*  
For contributions to speech, language, multimedia processing, affective computing, and their human-centered applications

Natasha Noy  
*Google Research*  
For contributions to open data, data discovery, and Semantic Web

Corina S. Pasareanu  
*NASA Ames and Carnegie Mellon University*  
For contributions to the development and application of symbolic execution and compositional verification

Massoud Pedram  
*University of Southern California*  
For contributions to low power design of VLSI circuits and to energy efficient computing

Anand Raghunathan  
*Purdue University*  
For contributions to the design of energy-efficient computing systems

Benjamin Raphael  
*Princeton University*  
For contributions to computational biology including algorithms in cancer genomics/evolution and biological network analysis

Dana Ron  
*Tel Aviv University*  
For contributions to sub-linear time approximation algorithms

Tim Roughgarden  
*Columbia University*  
For contributions to algorithmic game theory

David Sankoff  
*University of Ottawa*  
For contributions to research and leadership in computational biology and bioinformatics

Stefan Saroiu  
*Microsoft*  
For contributions to memory security and trusted computing
Albrecht Schmidt  
*Ludwig Maximilian University of Munich*  
For contributions to human-computer interaction, ubiquitous computing and implicit interaction, and leadership in ACM SIGCHI

Björn W. Schuller  
*Imperial College London, Technical University of Munich*  
For empirical and theoretical contributions to the development of computer audition, affective computing, and health informatics

Stefan Saroiu  
*Microsoft*  
For contributions to memory security and trusted computing

Phoebe Sengers  
*Cornell University*  
For contributions to critically-informed human-computer interaction and design.

Elaine Shi  
*Carnegie Mellon University*  
For contributions to the scientific foundation of oblivious computation and decentralized blockchains

Noah Snavely  
*Cornell Tech, Google*  
For contributions to computer vision and computer graphics

Ram D. Sriram  
*NIST*  
For contributions in building innovative computational tools and automation techniques in engineering and health care

Stefen Staab  
*University of Stuttgart, University of Southampton*  
For contributions to semantic technologies and web science, and distinguished service to the ACM community

Alexander Szalay  
*The Johns Hopkins University*  
For contributions in systems, big data, open data, and for service to the community

Manik Varma  
*Microsoft Research India*  
For contributions to machine learning and its applications

Xiaofeng Wang  
*Indiana University at Bloomington*  
For contributions to systems security and privacy

Kilian Weinberger  
*Cornell University*  
For contribution to machine learning and deep learning research

Emmett Witchel  
*The University of Texas at Austin*  
For contributions to high-performance, concurrent, and secure systems

Xing Xie  
*Microsoft Research Asia*  
For contributions to spatial data mining and recommendation systems
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 Recognition Program

The ACM Fellows program, initiated in 1993, celebrates the exceptional contributions of the leading members in the computing field. To be selected as an ACM Fellow, a candidate's accomplishments are expected to place him or her among the top 1% of ACM members. These individuals have helped to enlighten researchers, developers, practitioners, and end users of information technology throughout the world. The ACM Distinguished Member program, initiated in 2006, recognizes those members with at least 15 years of professional experience who have made significant accomplishments or achieved a significant impact on the computing field. ACM Distinguished Membership recognizes up to 10% of ACM's top members. The ACM Senior Member program, also initiated in 2006, includes members with at least 10 years of professional experience who have demonstrated performance that sets them apart from their peers through technical leadership, technical contributions, and professional contributions. ACM Senior Member status recognizes the top 25% of ACM Professional Members. The new ACM Fellows, Distinguished Members, and Senior Members join a list of eminent colleagues to whom ACM and its members look for guidance and leadership in computing and information technology.

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