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ACM NAMES FELLOWS FOR INNOVATIONS IN COMPUTING

2014 Fellows Made Computing Contributions to Enterprise, Entertainment, and Education

NEW YORK, January 8, 2015—ACM has recognized 47 of its members for their contributions to computing that are driving innovations across multiple domains and disciplines. The <u>2014 ACM Fellows</u>, who hail from some of the world's leading universities, corporations, and research labs, have achieved advances in computing research and development that are driving innovation and sustaining economic development around the world.

ACM President Alexander L. Wolf acknowledged the advances made by this year's ACM Fellows. "Our world has been immeasurably improved by the impact of their innovations. We recognize their contributions to the dynamic computing technologies that are making a difference to the study of computer science, the community of computing professionals, and the countless consumers and citizens who are benefiting from their creativity and commitment."

The 2014 ACM Fellows have been cited for contributions to key computing fields including database mining and design; artificial intelligence and machine learning; cryptography and verification; Internet security and privacy; computer vision and medical imaging; electronic design automation; and human-computer interaction.

ACM will formally recognize the 2014 Fellows at its annual Awards Banquet in June in San Francisco. Additional information about the ACM 2014 Fellows, the awards event, as well as previous ACM Fellows and award winners is available on the <u>ACM Awards site</u>.

2014 ACM Fellows

Samson Abramsky

University of Oxford For contributions to domains in logical form, game semantics, categorical quantum mechanics and contextual semantics

Vikram Adve

University of Illinois at Urbana-Champaign For developing the LLVM compiler and for contributions to parallel computing and software security

Foto Afrati National Technical University of Athens *For contributions to the theory of database systems*

Charles Bachman Retired For contributions to database technology, notably the integrated data store

Allan Borodin

University of Toronto For contributions to theoretical computer science, in complexity, on-line algorithms, resource tradeoffs, and models of algorithmic paradigms.

Alan Bundy University of Edinburgh For contributions to artificial intelligence, automated reasoning, and the formation and evolution of representations

Lorrie Cranor

Carnegie Mellon University For contributions to research and education in usable privacy and security

Timothy A. Davis

Texas A&M University For contributions to sparse matrix algorithms and software

Srinivas Devadas

Massachusetts Institute of Technology For contributions to secure and energy-efficient hardware

Inderjit Dhillon

University of Texas at Austin For contributions to large-scale data analysis, machine learning and computational mathematics

Nikil D. Dutt

University of California, Irvine For contributions to embedded architecture exploration and service to electronic design automation and embedded systems

Faith Ellen

University of Toronto For contributions to data structures, and the theory of distributed and parallel computing

Michael D. Ernst

University of Washington For contributions to software analysis, testing, and verification

Adam Finkelstein

Princeton University For contributions to non-photorealistic rendering, multi-resolution representations, and computer graphics

Juliana Freire

New York University For contributions to provenance management research and technology, and computational reproducibility

Johannes Gehrke

Cornell University For contributions to data mining and data stream query processing

Eric Grimson

Massachusetts Institute of Technology For contributions to computer vision and medical image computing

Mark Guzdial

Georgia Institute of Technology For contributions to computing education, and broadening participation

Gernot Heiser

University of New South Wales/National Information and Communications Technology Australia (NICTA) Research Centre of Excellence For contributions demonstrating that provably correct operating systems are feasible and suitable for real-world use

Eric Horvitz

Microsoft Research For contributions to artificial intelligence and human-computer interaction

Thorsten Joachims

Cornell University For contributions to the theory and practice of machine learning and information retrieval

Michael Kearns

University of Pennsylvania For contributions to machine learning, artificial intelligence, and algorithmic game theory and computational social science

Valerie King

University of Victoria For contributions to randomized algorithms, especially dynamic graph algorithms and fault tolerant distributed computing

Sarit Kraus

Bar Ilan University For contributions to artificial intelligence, including multi-agent systems, human-agent interaction and non-monotonic reasoning

Leslie Lamport

Microsoft Research For contributions to the theory and practice of distributed and concurrent systems

Sharad Malik

Princeton University For contributions to efficient and capable SAT solvers, and accurate embedded software models

Yishay Mansour

Tel-Aviv University For contributions to machine learning, algorithmic game theory, distributed computing, and communication networks

Subhasish Mitra

Stanford University For contributions to the design and testing of robust computing systems

Michael Mitzenmacher

Harvard University For contributions to coding theory, hashing algorithms and data structures, and networking algorithms

Robert Morris

Massachusetts Institute of Technology For contributions to computer networking, distributed systems, and operating systems

Vijaykrishnan Narayanan

Pennsylvania State University For contributions to power estimation and optimization in the design of power-aware systems

Shamkant B. Navathe

Georgia Institute of Technology For contributions to data modeling, database design, and database education

Jignesh M. Patel

University of Wisconsin, Madison For contributions to high-performance database query processing methods, in particular on spatial data

Parthasarathy Ranganathan

Google Inc. For contributions to the areas of energy efficiency and server architectures

Omer Reingold

Weizmann Institute of Science/Stanford University For contributions to the study of pseudorandomness, derandomization and cryptography

Tom Rodden

University of Nottingham For contributions to ubiquitous computing and computer supported cooperative work

Ronitt Rubinfeld Massachusetts Institute of Technology/Tel-Aviv University For contributions to delegated computation, sublinear time algorithms and property testing

Daniela Rus

Massachusetts Institute of Technology For contributions to robotics and sensor networks

Alberto Sangiovanni-Vincentelli

University of California, Berkeley For contributions to electronic design automation

Henning Schulzrinne

Columbia University For contributions to the design of protocols, applications, and algorithms for Internet multimedia

Stuart Shieber

Harvard University For contributions to natural-language processing, and to open-access systems and policy

Ramakrishnan Srikant

Google Inc. For contributions to knowledge discovery and data mining

Aravind Srinivasan

University of Maryland, College Park For contributions to algorithms, probabilistic methods, and networks

S. Sudarshan

Indian Institute of Technology Bombay For contributions to database education, query processing, query optimization and keyword queries

Paul Syverson

Naval Research Lab For contributions to and leadership in the theory and practice of privacy and security

Gene Tsudik

University of California, Irvine For contributions to Internet security and privacy

Steve Whittaker

University of California, Santa Cruz For contributions to human computer interaction

About ACM

ACM, the Association for Computing Machinery <u>www.acm.org</u>, 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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