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The Association for Computing Machinery
Advancing Computing as a Science & Profession

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ACM NAMES FELLOWS FOR COMPUTING ADVANCES THAT ARE DRIVING INNOVATIONS IN COMMERCE, INDUSTRY AND ENTERTAINMENT

2011 Fellows Represent World's Leading Universities and Corporations

NEW YORK, December 8, 2011 -- ACM has recognized 46 of its members for their contributions to computing that have provided fundamental knowledge to the computing field and generated multiple technology advances in industry, commerce, healthcare, entertainment, and education. The 2011 ACM Fellows **http://fellows.acm.org/homepage.cfm** , from the world's leading universities, corporations, and research labs, are helping to drive the innovations that will sustain competitiveness in the digital age.

"These women and men, who are some of the leading thinkers and practitioners in computer science and engineering, are changing how the world lives and works," said ACM President Alain Chesnais. "They have mastered the tools of computing and computer science to address the many significant challenges that confront populations across the globe. These international luminaries are responsible for solutions that are transforming our society for the better – in healthcare, communications, cybersecurity, robotics, commerce, industry, and entertainment."

The complete list of 2011 ACM Fellows is appended to this announcement.

Within the corporate sector, the 2011 ACM Fellows named from **AT&T Labs - Research** were cited for contributions for data management and algorithm design and analysis. **Google Inc.** Fellows were recognized for advances in full-system simulation and information retrieval. **Microsoft Research's** ACM Fellows were honored for achievements in software analysis, computer graphics, reasoning and decision-making, network control, and distributed computing. Other companies with 2011 ACM Fellows are **Cavium, Inc. and Forte Design Systems.** Their respective contributions include high performance microarchitecture and hardware simulation.

Among the universities with 2011 ACM Fellows was the **University of California**, with representatives from the **Santa Barbara**, **Irvine**, **Davis**, and **San Diego** campuses. These Fellows were recognized for achievements in data management systems; graph algorithms and computational geometry; visualization and computer animation; computational science; high performance processors; and data center scalability and management. ACM Fellows at **Carnegie Mellon University** included those

honored for contributions to parallel computing, and human computer interaction. **Harvard University**'s ACM Fellows were cited for security and privacy policy leadership, and data management and computing systems. The **University of Washington**'s ACM Fellows were acknowledged for achievements in architecture and design of reconfigurable systems, and computer network design. At the **University of Michigan**, ACM Fellows were tapped for contributions to human-computer interaction and planning systems design.

Other North American universities with 2011 ACM Fellows include **University of Toronto**; **Indiana University; Massachusetts Institute of Technology**; the **University of Southern California**; the **University of North Carolina at Chapel Hill**; **Stony Brook University; Case Western Reserve University**; the **University of Illinois at Urbana-Champaign**; and **Tufts University**. ACM Fellows from these institutions were cited for achievements in human-computer interaction; software applications for high performance computing; distributed systems and e-commerce; computer networking; geometric modeling and computer graphics; geometric computing and approximation algorithms; database management systems; machine learning and natural language processing; and query processing in data management systems.

Among universities outside North America, the 2011 ACM Fellows hailed from **INRIA Saclay** in France; **Aarhus University** in Denmark; the **Hebrew University of Jerusalem** in Israel; **Tokyo Institute of Technology** in Japan; and **National University of Singapore**. Fellows from these universities were recognized respectively for achievements in theory and practice of databases; temporal and spatio-temporal data management; simulated annealing and combinatorial optimization; high performance computer design; and distributed data management.

Fellows with multiple affiliations included those from **NVIDIA Corp**. and the **University of Texas at Austin**; the **National Science Foundation** and the **University of California, San Diego; Harvard University** and **Oracle Corporation;** the **University of California, San Diego** and **Google Inc.; École Polytechnique Fédérale de Lausanne** in Switzerland, **Renyi Institute** in Hungary, and the **Courant Institute at New York University**; and **L.J. Gonzer Associates** and **IBM Research**. They were cited respectively for contributions to software verification by model checking; computer architectures and technology modeling; distributed systems; data management and computing systems; data center scalability and management; computational geometry; and optimizing compilers.

ACM will formally recognize the 2011 Fellows at its annual Awards Banquet on June 16, 2012, in San Francisco, CA. Additional information about the ACM 2011 Fellows, the awards event, as well as previous ACM Fellows and award winners is available at **www.acm.org/awards**.

2011 Fellows and Citations

Serge Abiteboul
INRIA Saclay
For contributions to the theory and practice of databases

Divyakant Agrawal
University of California, Santa Barbara
For contributions to distributed data management systems

Ronald M. Baecker
University of Toronto
For contributions to human-computer interaction and computer animation

Thomas J. Ball
Microsoft Research
For contributions to software analysis and defect detection

Guy Blelloch
Carnegie Mellon University
For contributions to parallel computing

Carl Ebeling
University of Washington
For contributions to the architecture and design of reconfigurable systems

David Eppstein
University of California, Irvine
For contributions to graph algorithms and computational geometry

Geoffrey C. Fox
Indiana University
For contributions to software applications for high-performance computing, and for diversity outreach

George W. Furnas
University of Michigan
For contributions to human-computer interaction

David K. Gifford
Massachusetts Institute of Technology
For contributions to distributed systems, e-commerce and content distribution

Ramesh Govindan
University of Southern California
For contributions to computer networking

Baining Guo
Microsoft Research
For contributions to computer graphics

David Heckerman
Microsoft Research
For contributions to reasoning and decision-making under uncertainty

Gerard J. Holzmann
NASA Jet Propulsion Laboratory
For contributions to software verification by model checking

Hugues Hoppe
Microsoft Research
For contributions to computer graphics

Christian S. Jensen
Aarhus University
For contributions to temporal and spatio-temporal data management

Howard J. Karloff
AT&T Labs - Research
For contributions to the design and analysis of algorithms

Stephen W. Keckler
NVIDIA Corporation/The University of Texas at Austin
For contributions to computer architectures and technology modeling

Peter B. Key
Microsoft Research
For network control and routing

Scott Kirkpatrick
The Hebrew University of Jerusalem
For simulated annealing and contributions to combinatorial optimization

Robert E. Kraut
Carnegie Mellon University
For contributions to human-computer interaction

Susan Landau
Harvard University
For public policy leadership in security and privacy

Ming C. Lin
University of North Carolina at Chapel Hill
For contributions to geometric modeling and computer graphics

Peter S. Magnusson
Google Inc.
For contributions to full-system simulation

Dahlia Malkhi
Microsoft Research
For contributions to fault-tolerant distributed computing

Keith Marzullo
National Science Foundation/University of California, San Diego
For contributions to distributed systems and service to the computing community

Satoshi Matsuoka
Tokyo Institute of Technology
For contributions to the design of high-performance computers

Nelson Max
University of California, Davis
For contributions to visualization tools and computer animation

Joseph S.B. Mitchell
Stony Brook University
For contributions to geometric computing and approximation algorithms

Shubu Mukherjee
Cavium, Inc.
For contributions to modeling and design of high-performance and soft-error-tolerant microarchitectures

Beng Chin Ooi
National University of Singapore
For contributions to spatio-temporal and distributed data management

Zehra Meral Özsoyoğlu
Case Western Reserve University
For contributions to database management systems

Janos Pach
École Polytechnique Fédérale de Lausanne – EPFL/Renyi Institute/Courant Institute at NYU
For contributions to computational geometry

Linda Petzold
University of California, Santa Barbara
For contributions to computational science

Martha E. Pollack
University of Michigan
For contributions to planning systems design and for service to the computing community

Dan Roth
University of Illinois at Urbana-Champaign
For contributions to machine learning and natural language processing

John W. Sanguinetti
Forte Design Systems
For contributions to hardware simulation

Margo Seltzer
Harvard University/Oracle Corporation
For contributions to data management and computing systems

Amit Singhal
Google Inc.
For contributions to search and information retrieval

Diane L. Souvaine
Tufts University
For contributions to computational geometry and for service on behalf of the computing community

Divesh Srivastava
AT&T Labs - Research
For contributions to query processing in data management systems

Dan Suciu
University of Washington
For contributions to probabilistic databases and semistructured data

Dean M. Tullsen
University of California, San Diego
For contributions to the architecture of high-performance processors

Amin Vahdat
University of California, San Diego/Google Inc.
For contributions to data center scalability and management

David J. Wetherall
University of Washington
For contributions to computer network design

Frank Kenneth Zadeck
L.J. Gonzer Associates/IBM Research (Consultant)
For contributions to optimizing compilers

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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