



**Association for
Computing Machinery**

Advancing Computing as a Science & Profession

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**ACM AWARDS RECOGNIZE INNOVATORS IN COMPUTER SCIENCE
WHO SOLVE REAL WORLD PROBLEMS**

Awards Honor Lifetime Achievers as Well as Outstanding Young Professionals

NEW YORK, March 17, 2009 – The Association for Computing Machinery ([ACM](#)) today announced the winners of five prestigious awards honoring innovations in computing technology that benefit society through their profound impact on the way we live and work. The awards reflect outstanding achievements that have led to advances in constructing intelligent machines, more efficient database management, interdisciplinary applications of computer science, more reliable software, and field-defining textbooks. The 2008 ACM award winners are innovators from internationally known research and academic institutions. These awards honor practiced innovators as well as promising newcomers in the computing arena. ACM will present these and other awards at the **ACM Awards Banquet on June 27**, in San Diego, CA.

The 2008 ACM award winners include:

- **Corinna Cortes and Vladimir Vapnik** – the [Paris Kanellakis Theory and Practice Award](#) for their revolutionary development of a highly effective algorithm known as Support Vector Machines (SVM), a set of related supervised learning methods used for data classification and regression common in the field of artificial intelligence. As a result of this work, SVM is one of the most frequently used algorithms in machine learning, and is used in medical diagnosis, weather forecasting, and intrusion detection among many other practical applications. Cortes is the Head of Google Research, NY, where she works on a broad range of theoretical and applied large-scale machine learning problems. Vapnik is a Fellow of NEC Laboratories in Princeton and professor of computer science at Columbia University. *The Kanellakis Award honors specific theoretical accomplishments that significantly affect the practice of computing.*
- **Gamma Parallel Database System** - the [Software System Award](#) for this prototype parallel relational database system, which was the first parallel database management system (DBMS) to publish results demonstrating the ability to run the same query with the same performance on larger data sets by simply adding hardware nodes. The Gamma project had a profound impact on the database field by demonstrating that scalable performance could be achieved without the use of specialized hardware.

Developed by **David J. DeWitt**, Microsoft/University of Wisconsin-Madison (Emeritus); **Robert Gerber** of Microsoft; **Murali Krishna** of Hewlett Packard; **Donovan A. Schneider** of Yahoo!; **Shahram Ghandeharizadeh** of the University of Southern California; **Goetz Graefe** of Hewlett Packard; **Michael Heytens** of RGM Advisors; **Hui-I Hsiao** of IBM; **Jeffrey F. Naughton** of the University of Wisconsin-Madison; and **Anoop Sharma** of Hewlett Packard. *The Software System Award is given to an institution or individuals recognized for developing software systems that have had a lasting influence, reflected in contributions to concepts and/or commercial acceptance.*

- **Barbara Grosz and Joseph Y. Halpern** - the [ACM/AAAI Allen Newell Award](#). **Grosz**, Higgins Professor of Natural Sciences, Harvard School of Engineering and Applied Sciences, and Dean, Radcliffe Institute for Advanced Study at Harvard University, was recognized for pioneering research in natural language processing and multi-agent systems, and leadership in the artificial intelligence field. Her highly interdisciplinary work draws on theories and results from economics, psychology, and philosophy as well as computer science. **Halpern**, a Cornell University professor of computer science, was honored for fundamental advances in reasoning about knowledge, belief, and uncertainty. His research has led to groundbreaking applications in artificial intelligence, computer science, game theory, economics, and the philosophy of science. *The Newell Award recognizes career contributions that have breadth within computer science, or that bridge computer science and other disciplines.*
- **Dawson Engler** - the [Grace Murray Hopper Award](#) for groundbreaking research on automated program checking and finding bugs in complex computer software. Engler, an associate professor of Computer Science and Electrical Engineering at Stanford University, developed powerful tools and techniques used in practical program analysis to find errors in computer software code. *The Hopper Award recognizes the outstanding young computer professional of the year.*
- **John Hopcroft** - the [Karl V. Karlstrom Outstanding Educator Award](#) for his vision and impact on computer science as a prolific author of field-defining texts on theory and algorithms. Hopcroft, professor of Engineering and Applied Mathematics at Cornell University, also advised Ph.D. students who are now contributing greatly to the field. He has also been recognized for influential leadership in computer science research and education at the national and international level. *The Karlstrom Award recognizes educators who advanced new teaching methodologies; effected new curriculum development in Computer Science and Engineering; or contributed to ACM's educational mission.*

About the Awards

Paris Kanellakis Theory and Practice Award honors specific theoretical accomplishments that have had a significant and demonstrable effect on the practice of computing. This award is accompanied by a prize of \$5,000 and is endowed by contributions from the Kanellakis family, with additional financial support provided by ACM's Special Interest Groups on Algorithms and Computation Theory (SIGACT), Design Automation (SIGDA), Management of Data (SIGMOD), and Programming Languages (SIGPLAN), the ACM SIG Projects Fund, and individual contributions.

Software System Award honors an institution or individual(s) recognized for developing a software system that has had a lasting influence, reflected in contributions to concepts, in commercial acceptance, or both. This award carries a prize of \$35,000. Financial support for the award is provided by [IBM](#). This year's recipients have requested that the prize be donated to the Jim Gray Chair in Engineering at the University of California,

Berkeley.

ACM/AAAI Allen Newell Award is presented to an individual selected for career contributions that have breadth within computer science, or that bridge computer science and other disciplines. This endowed award is accompanied by a prize of \$10,000, and is supported by the [Association for the Advancement of Artificial Intelligence](#), and by individual contributions.

Grace Murray Hopper Award is given to the outstanding young computer professional of the year, selected on the basis of a single recent major technical or service contribution. This award is accompanied by a prize of \$35,000. The candidate must have been 35 years of age or less at the time the qualifying contribution was made. Financial support for this award is provided by [Google](#).

Karl V. Karlstom Outstanding Educator Award is presented annually to an outstanding educator who is appointed to a recognized educational baccalaureate institution. The recipient is recognized for advancing new teaching methodologies; effecting new curriculum development or expansion in Computer Science and Engineering; or making a significant contribution to the educational mission of ACM. Those with ten years or less teaching experience are given special consideration. A prize of \$5,000 is supplied by the [Prentice-Hall Publishing Company](#).

About ACM

ACM, the Association for Computing Machinery www.acm.org, 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.

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