

**IEEE JOHN VON NEUMANN MEDAL**  
**RECIPIENTS**

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|------|--|---|
| 2019 | EVA TARDOS<br>Jacob Gould Schurman Professor of<br>Computer Science, Cornell<br>University, Ithaca, New York, USA  | "For contributions to the field of algorithms,<br>including foundational new methods in<br>optimization, approximation algorithms, and<br>algorithmic game theory."                                 |
| 2018 | PATRICK COUSOT<br>Professor, New York University,<br>New York, New York, USA   | "For introducing abstract interpretation, a<br>powerful framework for automatically<br>calculating program properties with broad<br>application to verification and optimization."                  |
| 2018 | PATRICK COUSOT<br>Professor, New York University,<br>New York, New York, USA   | "For introducing abstract interpretation, a<br>powerful framework for automatically<br>calculating program properties with broad<br>application to verification and optimization."                  |
| 2017 | VLADIMIR VAPNIK<br>Professor, Columbia University and<br>Facebook AI Research, New York,<br>New York, USA  | "For the development of statistical learning<br>theory, the theoretical foundations for<br>machine learning, and support vector<br>machines."   |
| 2016 | CHRISTOS HARILAOS<br>PAPADIMITRIOU<br>Professor, University of California,<br>Berkeley, Berkeley, California, USA  | "For providing a deeper understanding of<br>computational complexity and its implications<br>for approximation algorithms, artificial<br>intelligence, economics, database theory,<br>and biology." |
| 2015 | JAMES A. GOSLING<br>Chief Software Architect, Liquid<br>Robotics, Redwood, California, USA   | "For the Java programming language, Java<br>Virtual Machine, and other contributions to<br>programming languages and environments."   |
| 2014 | CLEVE MOLER<br>Chief Mathematician, MathWorks,<br>Santa Fe, New Mexico, USA  | "For fundamental and widely used<br>contributions to numerical linear algebra and<br>scientific and engineering software that<br>transformed computational science."                                |
| 2013 | JACK B. DENNIS<br>Professor Emeritus, Massachusetts<br>Institute of Technology Computer<br>Science and Artificial Intelligence<br>Laboratory, MIT, Cambridge, MA,<br>USA | "For fundamental abstractions to implement<br>protection in operating systems and for the<br>dataflow programming paradigm."  |
| 2012 | EDWARD McCLUSKEY<br>Professor Emeritus, Departments of<br>Electrical Engineering and<br>Computer Science, Stanford<br>University, Stanford, CA, USA                      | "For fundamental contributions that shaped<br>the design and testing of digital systems."   |

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| 2011 | C.A.R. (TONY) HOARE<br>Principal Researcher, Microsoft<br>Research Ltd.; Cambridge, UK   | "For seminal contributions to the scientific<br>foundation of software design."  |
| 2010 | JOHN HOPCROFT<br>IBM Professor of Engineering and<br>Applied Mathematics, Cornell<br>University, Cornell, NY, USA  | "For laying the foundations for the fields of<br>automata and language theory and many<br>seminal contributions to theoretical computer<br>science." |
| AND  | JEFFREY ULLMAN<br>Professor Emeritus of Computer<br>Science, Stanford University<br>Stanford, CA, USA  |  |
| 2009 | SUSAN L. GRAHAM<br>Pehong Chen Distinguished<br>Professor of Computer Science,<br>Univ of California at Berkeley,<br>Berkeley, CA, USA                           | "For contributions to programming language<br>design and implementation and for<br>exemplary service to the discipline of<br>computer science."      |
| 2008 | LESLIE LAMPORT<br>Researcher, Microsoft Corporation,<br>Silicon Valley Research Center,<br>Mountain View, CA, USA  | "For establishment of the foundations of<br>distributed and concurrent computing."   |
| 2007 | CHARLES THACKER<br>Distinguished Engineer, Microsoft<br>Corporation, Redmond, WA, USA  | "For a central role in the creation of the<br>personal computer and the development of<br>networked computer systems."                               |
| 2006 | EDWIN CATMULL<br>President, Pixar Animation Studios,<br>Emeryville, CA, USA  | "For fundamental contributions to computer<br>graphics, and a pioneering role in the use of<br>computer animation in motion pictures."               |
| 2005 | MICHAEL STONEBRAKER<br>Adjunct Professor, Laboratory for<br>CS, Massachusetts Institute of<br>Technology, Bedford, NH, USA                                       | "For contributions to the design,<br>implementation, and commercialization of<br>relational and object-relational database<br>systems."              |
| 2004 | BARBARA H. LISKOV<br>Ford Professor of Engineering and<br>Associate Head for Computer<br>Science, Massachusetts Institute of<br>Technology<br>Cambridge, MA, USA | "For fundamental contributions to<br>programming languages, programming<br>methodology, and distributed systems."                                    |
| 2003 | ALFRED V. AHO<br>Professor, Columbia University,<br>New York, NY, USA  | "For contributions to the foundations of<br>computer science and to the fields of<br>algorithms and software tools."                                 |

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2002	OLE-JOHAN DAHL Univ of Oslo, Oslo, Norway	"For the introduction of the concepts underlying object-oriented programming through the design and implementation of SIMULA 67."
AND	KRISTEN NYGAARD Univ of Oslo, Oslo, Norway	
2001	BUTLER W. LAMPSON Distinguished Engineer at Microsoft and Adjunct Professor at MIT	"For technical leadership in the creation of timesharing, distributed computing, networking security and program languages."
2000	JOHN L. HENNESSY Stanford University Stanford, CA, USA	"For creating a revolution in computer architecture through their exploration, popularization, and commercialization of architectural innovations."
AND	DAVID A. PATTERSON University of California at Berkeley Berkeley, CA, USA	
1999	DOUGLAS C. ENGELBART Bootstrap Institute Fremont, CA, USA	"For creating the foundations of real time, interactive, personal computing including CRT displays, windows, the mouse, hypermedia linking and conferencing, and on-line journals."
1998	IVAN EDWARD SUTHERLAND Sun Microsystems Laboratories Palo Alto, CA, USA	"For pioneering contributions to computer graphics and microelectronic design, and leadership in the support of computer science and engineering research"
1997	MAURICE V. WILKES Olivetti Research Ltd. Cambridge, England	"For a lifelong career of seminal contributions to computing, including the first full-scale operational stored program computer and to the foundations of programming."
1996	CARVER A. MEAD California Institute of Technology Pasadena, CA, USA	"For leadership and innovative contributions to VLSI and creative microelectronic structures."
1995	DONALD E. KNUTH Stanford University Stanford, CA, USA	"For fundamental contributions to the theory and practice of computer science and to the art of computer programming."
1994	JOHN COCKE IBM/T.J. Watson Research Center Yorktown Heights, NY, USA	"For contributions to the computer industry including the invention, development and implementation of Reduced Instruction Set Computer (RISC) architecture and program optimization technology."

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1993 FREDERICK P. BROOKS, JR.  
Univ. of North Carolina  
Chapel Hill, NC, USA

"For significant developments in computer architecture, insightful observations on software engineering, and for computer science education and professional service."

1992 C. GORDON BELL  
Stardent Computer  
Sunnyvale, CA, USA

"For innovative contributions to computer architecture and design."