

## **Biographical Sketch: Michael Stonebraker**

MIT Computer Science and Artificial Intelligence Laboratory  
32 Vassar St., room 32-G922  
Cambridge, MA. 02139  
Tel (603) 714-4451  
Email: [stonebraker@csail.mit.edu](mailto:stonebraker@csail.mit.edu)

### **Areas of Special Interest**

Database systems, data warehouses, federated database systems, database systems for new application areas, operating systems

### **Professional Preparation:**

B.S.E.E. - Princeton University 1961  
PhD Computer Information and Control Engineering - Univ. of Michigan 1971

### **Appointments**

University of California, Berkeley – Asst. Professor 1971-1976,  
Assoc. Professor 1976-1982,  
Professor 1982-1994,  
Professor of the Graduate School 1994-1999.  
Massachusetts Institute of Technology – Senior lecturer 2001-2002  
Adjunct Professor 2002-  
Ingres Corporation – Founder and Chief Technology Officer - 1980-1992  
Illustra Corporation – Founder and Chief Technology Officer - 1992-1996  
Informix Corporation – Chief Technology Officer - 1996-2000  
Cohera Corporation – Founder and Chief Technology Officer - 1997-2001  
Required Technology, Inc. Chief Technology Officer 2001- 2002  
Streambase, Inc. – Founder and Chief Technology Officer – 2003-  
Vertica Systems, Inc. – Founder and Chief Technology Officer – 2005 –

### **Awards and Honors:**

ACM Software System Award 1988  
ACM SIGMOD Innovation Award 1992  
National Academy of Engineering 1998  
Computer Reseller News – Hall of Fame Member, 1999  
IEEE John von Neumann Medal 2005

### **Relevant Publications (5)**

Michael Stonebraker et. al., “Whither DBMS Architecture,” Proc 2007 CIDR Conference, Asilomar, Ca., Jan 2007  
Michael Stonebraker, et. al., “C-Store: A Column-oriented DBMS,” Proc. 2005 VLDB Conference, Trondheim, Norway, Sept 2005.  
Michael Stonebraker, Ugur Cetintemel, “One Size Fits All: An Idea Whose Time Has Come and Gone,” Proc. 2005 ICDE Conference, Tokyo, Japan, April 2005.  
Hari Balakrishnan, Magda Balazinska, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey, Eddie Galvez, Jon Salz, Michael Stonebraker, Richard Tibbetts, Stan Zdonik, “Retrospective on Aurora,” VLDB Journal 13(4), p370-383 (2004)  
Daniel Abadi, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey, Sangdon, Michael Stonebraker, Nesime Tatbul, Stan Zdonik, “Aurora: A New Model and Architecture

for Data Stream Processing,” Proc. 2002 VLDB Conference, Hong Kong, China August 2002.

Chris Olston, Allison Woodruff, Alexander Aiken, Michael Chu, Vuk Ercegovac, Mark Lin, Mybrid Spalding, Michael Stonebraker, “DataSplash,” SIGMOD 1998, p550-552.

Michael Stonebraker, Paul M. Aoki, Witold Litwin, Avi Pfeffer, Adam Sah, Jeff Sidell, Carl Staelin, Andrew Yu, “Mariposa: A Wide-Area Distributed Database System,” VLDB Journal 5(1), p48-63 (1996).

#### **A sample of other publications (5)**

Michael Stonebraker, Jolly Chen, Nobuko Nathan, Caroline Paxson, Jiang Wu, “Tioga: Providing Data Management Support for Scientific Visualization Applications,” VLDB 1993, p25-38.

Michael Stonebraker, “The Integration of Rule Systems and Database Systems,” TKDE 4(5), p415-423 (1992).

Michael Stonebraker, Greg Kemnitz, “The Postgres Next Generation Database Management System,” CACM 34(10), p78-92 (1991).

Margo I. Seltzer, Michael Stonebraker, “Transaction Support in Read Optimized and Write Optimized File Systems,” VLDB 1990, p174-185.

Michael Stonebraker, Eugene Wong, Peter Kreps, Gerald Held, “The Design and Implementation of INGRES,” TODS 1(3), p189-222 (1976).

#### **Synergistic Activities:**

- Wrote several major public domain DBMS prototypes, including C-Store, Ingres and POSTGRESQL. The latter system is currently widely used as a teaching instrument in universities and forms the basic for several commercial DBMS products.
- Have founded the New England Database Symposium (NEDS) as a mechanism for Boston-area DBMS researchers to network and collaborate.
- Have produced 4 editions of the “Red Book” – an edited collection of papers that forms the core readings in many graduate database courses.
- Have organized (in conjunction with Jim Gray) four self assessments (roughly every 5 years) of the DBMS field by senior researchers.
- Have started (in conjunction with Jim Gray and David Dewitt) the Conference on Data Systems Research (CIDR) – a conference oriented toward practical research in data systems.

**Collaborations:** Betty Salzberg (Northeastern), Stan Zdonik (Brown), Mitch Cherniak (Brandeis), Joey Hellerstein (Berkeley), Joachim Hammer (Florida), Sam Madden (M.I.T.), Pat O’Neil (UMass/Boston)

**PhD Advisor:** Dr. Arch Naylor (Michigan) – now retired

**Completed PhD students:** (sample from more than 20 completed PhD students) Gerald Held (until recently Vp/ Eng’g of Oracle Corp.), Robert Epstein (founder and until recently VP/Eng’g of Sybase Corp.), Paula Hawthorn (most recently VP/Eng’g of Informix Corp.), Dale Skein (founder and CTO of Vitria Corp.), Mike Carey (Senior Architect at BEA), Margo Seltzer (Assoc Professor of Computer Science at Harvard), Anant Jhingran (Manager - Database Department of IBM Almaden Research Laboratory)