

## Curriculum Vitae

### Harold S. Stone

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Date of Birth: 10 August 1938  
Place of Birth: St. Louis, Missouri  
Citizenship: US

#### Education

Princeton	1956-1960	BSE	EE
Univ. of California, Berkeley	1960-1961	MSE	EE
Univ. of California, Berkeley	1961-1963	Ph. D.	EE

#### Awards and Honors.

Summa Cum Laude, Princeton, 1960  
Whiton Scholarship, Princeton, 1958-1959  
Phi Beta Kappa, Princeton, 1960  
Sigma Xi, Princeton, 1960  
Sigma Xi Book Award, Princeton, 1960  
Bigelow Prize, Princeton, 1960  
NSF Fellow, University of California, 1960-1963  
Distinguished Visitor, IEEE Computer Society, 1971-1973, 1979-1980.  
ACM National Lecturer, 1973-1975  
Tau Beta Pi, U of Massachusetts, 1981  
IEEE Fellow, 1986.  
Charles Babbage Award, 1991. Citation: "In recognition of his exceptional contributions to the evolution of computer architecture and high performance computing."  
Best Paper in Track, ICCD, 1992.  
IEEE Emanuel Piore Award, 1992. Citation: "For fundamental contributions to parallel computer technology, and to computer science education."  
ACM Fellow, 1994.  
IEEE Computer Society Taylor Booth Education Award, 1999. Citation: "for outstanding contributions in advancing computer science and engineering education through your research, teaching and most important through innovative writing of seminal textbooks that established the computer architecture on a firm foundation. "

#### Areas of Research Activities

Image Data Bases, Image Registration, and Image Searching  
Optical interconnections for computer systems  
Computer Architecture  
Distributed Processing  
Image Processing  
Parallel Algorithms  
Microprocessor Systems  
Operating Systems

Combinatorial Algorithms  
Computer-aided Design of VLSI Networks

### Positions Held

Fellow, NEC Research Institute, 8/94 - 4/01 (retired).  
Research Staff Member, IBM, 1/90 to 7/94.  
Manager, Advanced Architecture Studies, IBM, 9/84 to 1/90.  
Adjunct Professor, Courant Institute of Mathematics, 1/85 to 6/90.  
Professor, Electrical and Computer Engineering Department, University of Massachusetts, 9/74 to 8/84.  
Associate Professor of Computer Science and Electrical Engineering, Stanford University, 9/70 to 8/74.  
Acting Associate Professor of Computer Science and Electrical Engineering, Stanford University, 10/68-6/69 and 10/69-6/70. (On leave from SRI International.)  
Research Engineer, SRI International, Menlo Park, California, 11/63-12/68.  
Research Engineer, Boeing, Seattle, Washington, 7/63-11/63.

### Visiting Positions

Visiting Professor, Cornell University, Electrical Engineering Department, 1992-1993.  
Guest Lecturer in Computer Architecture, Ecole Polytechnique Federal de Lausanne, 10/91.  
Guest Lecture Series, Electrotechnical Laboratory, Tsukuba, Japan, 12/87.  
Visiting Lecturer, IBM Japan, 7/82-8/82.  
Visiting Professor, University of California, Berkeley, California, 9/77-6/78.  
Visiting Professor, University of Sao Paulo, Sao Paulo, Brazil, 7/75-8/75.  
Guest Lecturer, IRIA, Paris, France, 6/74.  
Visiting Scientist, Institute for Computer Applications in Science and Engineering, NASA Langley Research Center, Hampton, VA, 6/74-6/79.  
NASA Visiting Research Fellow, NASA Ames Research Center, Mt. View, California, 9/73-6/74.  
Guest Lecturer, Technical University of Berlin, 6/73-7/73.  
OAS Lecturer, Universidad de Chile, Santiago, Chile, 7/72-8/72.  
NASA ASEE Fellow, NASA Ames Research Center, Mt. View, CA, 6/71-9/71.  
Lecturer in Communications, IBM, San Jose, CA, 6/66-7/66.

### Consultantships

Expert Consultant, Haynes-Boone, Law firm; 4/16 to present, testifying in IPR cases IPR2016-00924, IPR2016-00925, HTC and Apple v. PUMA, testifying for Apple.  
Expert Consultant, Winston and Strawn, Law firm, 4/15 to present, testifying in 2:14-cv-689-JRG-RSP, PUMA v. HTC et al, testifying for Motorola.  
Expert Consultant, Sidley-Austin, Law firm, 4/15 to present, testifying in 2:14-cv-690-RSP, PUMA v. HTC et al, testifying for HTC; IPR cases IPR2015-01500, IPR2015-01501, IPR2015-01502, HTC et al v. PUMA, testifying for HTC; IPR cases IPR2016-00924, IPR2016-00925, HTC and Apple v. PUMA, testifying for HTC; and IPR cases IPR2017-00549, IPR2017-00577, IPR2017-00667, IPR2017-00668, IPR2018-00362, and IPR 2018-00363, SK hynix v. Netlist, testifying for SK hynix.  
Expert Consultant, Paul Hastings, Law firm, 5/15 to 3/16, testifying in 2:14-cv-687-JRG-RSP, PUMA v. Samsung et al, testifying for Samsung; and IPR cases IPR2015-01500, IPR2015-01501, IPR2015-01502, HTC et al v. PUMA, testifying for Samsung.  
Expert Consultant, Fish and Richardson Law firm, 7/15 to 8/15

Expert Consultant, Nelson, Bumgardner, and Casto, law firm; 5/11 to 3/14, testifying in Stragent V. Intel. Civil Action no. 6:11-CV-421.(testified on behalf of Stragent)

Expert Consultant, Devlin Law Firm, 8/14 to 10/14.

Expert Consultant, Finnegan-Henderson, 8/10 to 12/16, testified in TSC v. Mountcastle, et al., No. 1:10-cv-00901-TSE-TC. (testified on behalf of TSC), testifying in Parthenon Unified Memory Architecture v. LG et al. (also representing HTC, Samsung, Huawei, Motorola Mobility, ZTE, and Apple codefendants represented by other law firms), PUMA v. LG, HTC, and Samsung in Inter Partes Reviews IPR2015-01494, IPR2015-01500, IPR2015-01501, IPR2015-01502, IPR2015-01944, and IPR2015-01946 (testified on behalf of LG, HTC, and Samsung), IPR case to be assigned, (testified on behalf of Apple), IPR case to be assigned (testified on behalf of ZTE) testifying in PUMA v. HTC ,Case No. 2:14-cv-00690-RSP in (testifying on behalf of HTC), testifying in PUMA v. LG, Case No. 2:14-cv-00691-JRG-RSP (testifying on behalf of LG), testifying in PUMA v. ZTE, Case No. 2:15-cv-00225-JRG-RSP (testifying on behalf of ZTE)

Expert Consultant, Nix, Patterson, and Roach, 12/11 to 3/12.

Expert Consultant, Barcelo, Harrison, and Walker, 12/11 to 15/1.

Expert Consultant, Irell and Manella, 12/11 to 5/12.

Expert Consultant, Williams, Morgan, and Amerson, 1/11 to 3/12

Expert Consultant, Perkins-Coie, 5/10 to 5/11.

Expert Consultant, Quinn Emanuel, 10/10 to 4/13, testifying in Microunity v. Apple et al., No. 02:10-cv-91-LED-RSP (testified on behalf of Qualcomm, LG, HTC, and Google)

Expert Consultant, Alston and Bird, 12/09 to 5/12, testifying in AIT v. Dell, No. 5:07 CV 426-H (testified on behalf of Dell).

Expert Consultant, Irell and Manella, 11/08-11/09, testifying in WARF v. Intel, 3:08-cv-00078-bbc (W.D. Wisc), (testified on behalf of WARF).

Expert Consultant, Bartlit Beck Herman Palenchar and Scott, 11/07 to present, testifying in Convolv/MIT v. Seagate/Compaq, No. 00 CIV 5141 (GBD) (testified on behalf of Compaq).

Expert Consultant, Williams, Morgan, and Amerson, 11/06 to 11/08, testifying in BIAx v. Fujitsu and Sun Microsystems, No. 2:06-CV-364-TJW (testified on behalf of BIAx).

Expert Consultant, Ropes and Gray, 9/06 to 11/07, testifying in Convolv/MIT v. Seagate/Compaq, No. 00 CIV 5141 (GBD) (testified on behalf of Compaq)..

Consulting Editor for Prentice-Hall Publishing, 1999 to 2010.

Consultant, Los Alamos National Laboratory, NIS Division, 12/01 to 1/04; ISR Division, 1/04 to 2006; N Division, 1/04 to 2005.

Expert Consultant, McDermott, Will, and Emery, 11/05 to 2/07, testifying in BIAx v. Philips, No. 337-TA-559 (ITC) (testified on behalf of BIAx).

Expert Consultant, Finnegan Henderson Farabow Garrett and Dunner, 3/05 to 4/09, testifying in Biax v. Intel and ADI, No. 02-05-CV-184-TJW (E.D. Tex) (testified on behalf of BIAx, in Lofgren v. Prutchi, Patent Interference No. 105,581 (JL), (Technology Center 2800) (testified on behalf of Prutchi (Boston Scientific)), in Paradox v. ADT/DSC, No. 2:06-CV-00462-TJW (E.D. Tex) (testified on behalf of DSC, in BIAx v. Analog Devices, AAA Matter No. 11 181 Y 00186 09 (testified on behalf of BIAx); and author of declaration in Reexamination of US Patent 5,077,733 to Whipple, docket 04747.0177-00; 8/10 to 9/12, testifying in Biax v. Motorola Solutions, Inc et al., Civil Action No. 10-cv-03013-PAB-KLM (testified on behalf of Biax). 6/11 to 8/12, testifying in VIA *et al.* v. Apple before the ITC, action 337-TA-812 (testified on behalf of VIA),.

Expert Consultant, Weil, Gotshal, and Manges, 1/03 to 5/04, testifying in Mangosoft, Inc. v. Oracle Corp., No. 02-545-JM (D.N.H.) (testified on behalf of Oracle).

Expert Consultant, Irell and Manella, 2/03 to 1/05.  
Expert Consultant, Howrey, Simon, 8/02 to 1/07.  
Consultant, NASA Goddard Space Flight Systems, 4/01 to 12/04.  
Expert Witness, Fish and Neave, 1/02 to 4/03, testifying in Intel Corp v. Via Tech, No. A-01-CA602-SS (W.D. Tex.) (testified on behalf of Via Tech).  
Consulting Editor for PWS Publishing Series in Computer Architecture, 1993-1999.  
Consulting Editor for Addison/Wesley Series in Microcomputers, 1983-1992.  
Consultant, IBM Watson Research Center, 9/83-8/84.  
Consultant, Unidata Systems, Inc., 6/82-6/84.  
Consultant, Sperry Systems Management, Great Neck, NY, 6/82-8/84.  
Consultant, Assurance Technology, Carlisle, MA, 6/82-8/84.  
Consultant, IBM Federal Systems Division, 5/83-6/83.  
Consultant, IBM Watson Research Center, 1/82-5/82.  
Member of Advisory Committee, Solo Systems, Sunnyvale, CA, 4/82.  
Consultant, IBM Federal Systems Division, 8/81-9/81.  
Consultant, Assurance Technology, Carlisle, MA, 4/81-12/81.  
Consultant, Sky Computer, Lowell, MA, 4/81-6/81.  
Consulting Editor, University Microfilms, 12/80-12/85.  
Consulting Researcher, Sperry Research Center, Sudbury, MA, 6/80-2/81.  
Consultant, Sperry Systems Management, Great Neck, NY, 4/80-1/82.  
Consultant, Gartner Group, Greenwich, CT, 5/80-6/81.  
Consultant, Georgia Institute of Technology Engineering Station, 1/80 to 6/80.  
Consultant, GTE Sylvania, Needham Heights, MA, 7/79.  
Consultant, The Analytic Sciences Corporation, Reading MA, 7/79.  
Consulting Editor and Series Editor, McGraw-Hill, 1978-12/83.  
Consultant, Dean-Witter Reynolds, New York, 1978-1979.  
Consultant, Douglas Peterson and Assoc., Greenfield, MA, 1978-1981.  
Consultant, Monolithic Memories, Sunnyvale, CA, Inc., 1978  
Consultant, GE Naval Ordnance Systems, Pittsfield MA, 1977.  
Consultant, US Army CORADCOM, Fort Monmouth, NJ, 1975-1980.  
Consultant, Imagetics, Inc., Greenfield, MA, 1975-1977  
Member of Advisory Committee, Hewlett-Packard, 1975-1976.  
Consultant, Hewlett-Packard, 1970-1974, and 1975-1978.  
Consultant, Systems Control, Inc., Palo Alto, CA 1970-1973 and 1975-1977.  
Consultant, Wolf Management Services (now Systems Control, Inc.), 1969-1970.  
Consultant, SRI International, Menlo Park, CA, 1968-1969.  
Consultant, Precision Instruments, Palo Alto, CA, 1968.  
Consultant, Data Technology Corporation, Mt. View, CA, 1967-1970.  
Consultant, RAND Corporation, Santa Monica, CA, 1962-1963.

### **Professional Societies**

IEEE  
ACM  
SPIE

### **Professional Activities**

Session Organizer, 2000 Conference on Information Sciences and Systems, March, 2000  
Member, NSF Panel, Next Generation Software Panel, 1999  
Guest Co-Editor, IEEE Communications Magazine, January 1999

Member, Program Committee, 1999 Workshop on High-Speed Interconnections with Digital Computers

Member, Program Committee, Conference on Applications for Digital Libraries, 1995-1999

Member, Program Committee, 1998 International Super Computer Symposium

Member, Program Committee, 1998 ICCV Workshop on Content-Based Access of Image/Video Library Data

Speaker and Participant, 1998 NIH Lung Imaging Workshop on Technology Transfer

Member, Program Committee for 1997 Image Registration Workshop

Member, IEEE Awards Committee (Corporate Recognition and Best Papers), 1996-2000

Member, NSF Panel, Opportunities for Multidisciplinary Research, 1995

Chair, Science Council, Center of Excellence in Space Data and Information Sciences, 1995-1997.

Chair, Search Committee for Director of Center of Excellence in Space Data and Information Sciences, 1994.

Member, National Research Council, ONR Panel for Computer Science, 1994.

Member, NSF Committee of Visitors, Computer and Computing Research, 1993.

Program Committee Organizer, Workshop on Interconnections within High-Speed Digital Systems, 1993.

Member, NSF Research Infrastructure Awards Panel, 1993.

Member, IEEE Fellows Selection Committee, 1992-1995.

Member, Science Council, Center of Excellence in Space Data and Information Sciences, 1992-1994.

Vice President, Publications, IEEE Computer Society, 1992.

Session Organizer, Workshop on Interconnections within High-Speed Digital Systems, 1992.

Member, NSF Presidential Faculty Award Selection Committee, 1992.

Chair, Transactions Advisory Committee, IEEE Computer Society, 1991

Session Organizer, Workshop on Interconnections within High-Speed Digital Systems, 1991

Member, NSF Presidential Young Investigator Selection Committee, 1991.

Program Chair, Workshop on Interconnections within High-Speed Digital Systems, 1990

Track Chair, ACM Critical Issues Conference, 1990

Member, IEEE Hamming Award Selection Committee, 1990

Chair, Audit Committee, Computer Society Governing Board, 1989-90.

Member, IEEE Computer Society Governing Board, 1986-1992

Associate Editor, *IEEE Transactions on Parallel and Distributed Systems*, 1989-1993

Chair, Technical Committee on Interconnections within High-Speed Digital Systems, 1989-1990

Chair, IEEE Tab Awards and Recognition Committee, 1990

Member, NSF PYI Selection Panel, 1989, 1991

Member, Marist College Computer Selection Advisory Committee, 1988-1989

Member, ACM/IEEE Eckert-Mauchly Award Committee, 1988-1990.

Member, IEEE Tab Awards Committee, 1989

Member, IEEE Fellows Committee, Computer Society Representative, 1988-1990.

Chair, IEEE Kobayashi Field Award, 1987-1989.

Member Audit Committee, Computer Society Governing Board, 1988.

NSF Site Review Committee, Engineering Research Center Selection, 1988.

Member, NSF Coordinated Equipment for Research Selection Panel, Feb. 1986, Feb. 1987.

Member, Dartmouth College Advisory Committee, 1986-1987.

Member, NSF Presidential Young Investigator Panel, 1985

Member, NSF Advisory Committee, Manufacturing, Design, and Computer Engineering, 1985-

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