STEPHEN J. GARLAND, PhD

Principal Research Scientist, Emeritus, Massachusetts Institute of Technology

Contact Information

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Education

DARTMOUTH COLLEGE, AB, Mathematics, Summa Cum Laude	1963
UNIVERSITY OF CALIFORNIA, Berkeley, MA, Mathematics	1965
UNIVERSITY OF CALIFORNIA, Berkeley, PhD, Mathematics	1967

Employment

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Principal Research Scientist, Computer Science and Artificial Intelligence Laboratory	2003 - 2005
Principal Research Scientist, Laboratory for Computer Science	1987 - 2003
Research Scientist, Laboratory for Computer Science	1985 - 1987

THE HEBREW UNIVERSITY OF JERUSALEM

Fulbright Lecturer, Computer Science	1991 - 1992
Visiting Professor, Computer Science	1983 - 1984

DARTMOUTH COLLEGE

Professor, Computer Science and Mathematics	1980 - 1987
Associate Professor, Mathematics	1974 - 1980
Assistant Professor, Mathematics	1967 - 1974

UNIVERSITY OF CALIFORNIA, Berkeley   1975 - 1976
Visiting Lecturer, Computer Science
Research Associate Mathematician, Lawrence Hall of Science

STANFORD UNIVERSITY   1973
Research Associate, Artificial Intelligence Laboratory

UNIVERSITY OF CALIFORNIA, Los Angeles   1970 - 1971
Visiting Assistant Professor, Mathematics and Computer Science

Other Experience

• Principal, PCLIC (Promoting Computer Literacy in Children)	2014 - •••
• Partner and software architect, Stage1Software	2009 - •••
• Expert consultant and witness on matters concerning computer software litigation	1988 - 2009
• Webmaster, Pro Arte Chamber Orchestra of Boston	2007 - 2010
• Consultant, VeroModo, Inc.	2004 - 2006
• Consultant, Digital Equipment Systems Research Center	1987 - 1994
• Provider of professional development seminars, Yourdon, Inc.	1973 - 1977

Synopsis of Professional Activity

Principal, PCLIC (Promoting Computer Literacy in Children)   2014 -

Currently providing pro-bono computing workshops for K-12 students and teachers.

Expert Consultant and Witness on Matters Related to Computer Software   1988 - 2009

Providing expert assistance concerning software contracts, copyright, patents, and trade secrets. Have testified seven times, been deposed three other times, and provided reports for six other cases.

Consultant, VeroModo, Inc.   2004 - 2006

Consulted on, and assisted with, the implementation of Tempo, a simple formal language and set of tools for the design, development, and analysis of reliable distributed systems. Tempo is based on TIOA, a prototype language and set of tools developed in cooperation with students and other faculty at MIT.

Principal Research Scientist, MIT Laboratory for Computer Science   1985 - 2005

Developed LP, an automated tool for reasoning about hardware, software, and algorithms. Co-led development of specification languages and tools for software (Larch) and distributed systems (IOA). Contributed to research projects on active networks, location-aware computing, and the semantic web.

Chairman, Computer Science Advanced Placement Committee, The College Board   1981 - 1983

Chaired committee that developed the original Advanced Placement Course in Computer Science.

Chairman, Program in Computer and Information Science, Dartmouth College   1979 - 1983

Founded and chaired master's program on computers and management. Developed and taught courses on software engineering, project management, legal issues, and professional ethics.

Chairman, Computer Science Steering Committee, Dartmouth College   1976 - 1982

Developed undergraduate major in computer science. Spearheaded transformation of the Department of Mathematics into the Department of Mathematics and Computer Science.

Vice Chairman, ANSI/X3J2 BASIC Standards Committee   1974 - 1980

Chaired editorial subcommittee. Produced draft international standards for minimal and extended Basic.

Faculty Associate, Kiewit Computation Center, Dartmouth College   1969 - 1980

Coordinated application development for the undergraduate curriculum. Developed enhancements to Basic (structured control statements, parameterized procedures and modules, and graphics).

Assistant Director, Software Development Project, Kiewit Computation Center   1967 - 1969

Co-led development of DCTS, Dartmouth's pioneering timesharing system, which provided academic and administrative computing services at Dartmouth from 1969-1990.

Author of Textbooks, Research Articles, and Computer Software   1959 -

Wrote four books and over sixty papers in mathematics and computer science. Developed computer software, including three ALGOL compilers and parts of the DCTS operating system in the 1960's, the DCTS text formatting system and educational applications in the 1970's, tools for software specification and automated deduction in the 1980's, and tools for reliable distributed systems design in the 1990s.