

December 1999

Short CV

Alan Cary Shaw

Background

- * Ph.D., Computer Science, Stanford University, 1968
- * Professor Emeritus, UW, July 1999 - present
- * UW faculty since 1971
- * Other Employments: System Engineer, IBM, 1959-60, 1960-62;
Assistant Professor, Cornell University, 1968-71;
Visiting Professor: ENST Paris, UC Santa Cruz,
University of Paris, ETH Zurich

Honors

- * ACM Fellow, 1997+
- * Fulbright Research Scholar, 1986-87

Selected Publications

- * "A case for object-oriented real-time systems", Real-Time Systems, 18, 2000, pp.71-74 (in press).
- * "Real-Time Software", 1999, approx. 350 pp. (to be published by Wiley in 2000).
- * "Time-stamped event histories: a real-time programming object", Control Engineering Practice, 6, 3 (March, 1998), pp.417-420.
- * S.Raju and A.Shaw, "A prototyping environment for specifying, executing, and checking communicationg real-time state machines", Software Practice and Experience, 24, 2 (Feb. 1994), pp.175-195.
- * "Communicating real-time state machines", IEEE Trans. on Software Engineering, 18, 9 (Sept. 1992), pp.805-816. (Special issue on specification and analysis of real-time systems)
- * C.Park and A.Shaw, "Experiments with a program timing tool based on source-level timing schema", Proc. IEEE Real-Time Systems Symp., Dec. 1990, pp.72-81. (A modified version also appears in IEEE Computer, May 1991, in Lin & Krishna, "Readings in Real-Time Systems, 1993, and in Stankovic & Ramamrithan, "Advances in Real-Time Systems", 1992.)
- * "Reasoning about time in higher-level language software", IEEE Trans. on Software Engineering, 15, 7 (July, 1989), pp.875-889. (An updated version also appears as a chapter in S.Son (ed.), "Advances in Real-Time Systems", Prentice-Hall, 1995.)
- * L.Bic and A.Shaw, "The Logical Design of Operating Systems", 2nd Edition, Prentice-Hall, 1988, 370 pp.
- * I. Pohl and A.Shaw, "The Nature of Computation: An Introduction To Computer Science", Computer Science Press, 1981, 397 pp.
- * E. Horowitz, H.Morgan, and A.Shaw, "Computers and society: a proposed course for computer scientists", Comm. ACM, 15, 4 (April, 1972), pp. 257-261.
- * "Parsing of graph-representable pictures", J. ACM, 17, 3 (July 1970), pp. 453-481.

Teaching

- * Current Graduate Course: Real-Time Systems (CSE 553)
- * Other Classes Recently Taught: Software Engineering (CSE 403),
Operating Systems (CSE 451), Programming (CSE 142)
- * Principal Advisor to 17 Completed Ph.D.s

Selected Recent Professional Activities

- * NSF Panels: CS Fellowships and Minority Fellowships, 1989-92,

1997, 1999; Committee of Visitors 1996,
CAREER Panel 1996

- * Program Committees: IFAC/IFIP Workshop on Real-Time Programming, 1997-99; ARO/NSF Monterey Workshop on Software Engineering, 1998-99; IEEE Real-Time Systems Symposium, 1993, 94, 96; Annual Workshop on Real-Time Operating Systems and Software, 1991, 1994 (chair)
- * Editorial Boards: IEEE Trans. on Software Engineering, 1992-96; Real-Time Systems Journal, 1988-91

Some Recent Outside Courses

- * Software Engineering (12 days), 1998, State of Washington Personnel
- * Real-Time Systems, NTU satellite TV, one-day courses, 1992, 1993
- * Real-Time Systems, UC Santa Cruz, Summer Institute, 1991, 1992
- * Operating Systems, INRIA/EDF/CEA Summer School, France, 1990

Recent Invited Lectures

- * 23rd Annual Workshop on Real-Time Programming, Shantou, China, 1998 (Keynote)
- * First Int. Conference on Real-Time Computer Systems, Seoul, Korea, 1994 (Keynote)
- * Software Productivity Consortium, Virginia, 1989 (Distinguished Lecturer)
- * 1994-present: University of Paris, Seoul National University, UC Santa Cruz, Ecole Nationale Supérieure des Telecommunications Paris, INSA Lyons, University of Ottawa

Research Interests

Real-Time Systems, Software Specifications, Operating Systems
Software Engineering