Thomas E. Anderson

January 2000

Education	Ph.D. in Computer Science, 1991, University of Washington. Dissertation Title: *Operating System Support for High Performance Multiprocessing*, supervised by Profs. E.D. Lazowska and H.M. Levy.
	M.S. in Computer Science, 1989, University of Washington.
	A.B. *cum laude* in Philosophy, 1983, Harvard University.
Professional Experience	Department of Computer Science and Engineering, University of Washington. Associate Professor, 1997 − pres.
	Computer Science Division, University of California, Berkeley. Assistant and Associate Professor, 1991 − 1997.
	GenRad Inc., Development Engineer/Senior Development Engineer, 1983 − 1987.
Awards	Diane S. McEntyre Award for Excellence in Teaching, 1995.
	NSF Presidential Faculty Fellowship, 1994.
	Alfred P. Sloan Research Fellowship, 1994.
	NSF Young Investigator Award, 1992.
Professional Service	Associate Editor, ACM Transactions on Computer Systems, 1998 − pres.
	Guest Editor, Special Issue of IEEE MICRO on Hot Interconnects, February 1996.
	Program Committees: Networks: IEEE HotInterconnects 95 (co-chair), ACM SIG-COMM 2000. Operating Systems: SOSP 93, USENIX OSDI 99. Architecture: ACM ASPLOS 96, HPCA-4 98. Performance: ACM SIGMETRICS 94, SIGMETRICS 95.
Ph.D. Graduates	Jeanna Neefe Matthews (1999), Assistant Professor, Clarkson University.
	Randolph Wang (1999), Assistant Professor, Princeton University.
	Amin Vahdat (1999), Assistant Professor, Duke University.
	Douglas Ghormley (1998), Sandia National Laboratories.
	Michael Dahlin (1995) (with David Patterson), Assistant Professor, University of Texas.
	Margaret Martonosi (1993) (with Anoop Gupta), Associate Professor, Princeton University.
Masters Graduates	Neal Cardwell (2000), Amit Aggarwal (1999), Eshwar Belani (1998), Steve Rodrigues (1997), Clifford Mather (1995), Keith Krueger (1994), Kester Li (1994).
Courseware	Nachos, a software project for teaching undergraduate operating systems, in widespread use *http://www.cs.washington.edu/homes/tom/nachos/*. Appeared as appendix in *Operating Systems Concepts, 4th Ed.*, Silberschatz and Galvin, Addison-Wesley (Nov. 1993).

Selected Publications Professor Anderson's publications are, in aggregate, the 39th most referenced among all computer science researchers worldwide, according to www.csindex.com.

Stefan Savage, Neal Cardwell, David Wetherall and Tom Anderson. "TCP Congestion Control with a Misbehaving Receiver." *ACM Computer Communications Review*, v 29, no 5, October, 1999.

A. Vahdat, M. Dahlin, T. Anderson and A. Aggarwal. "Active Names: Flexible Location and Transport of Wide-Area Resources." *Proc. 1999 USENIX Symposium on Internet Technologies and Systems (USITS)*, Oct. 1999.

S. Savage, A. Collins, E. Hoffman, J. Snell, and T. Anderson. "The End-to-End Effects of Internet Path Selection." *Proc. of the ACM SIGCOMM '99 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, Sept. 1999.

S. Savage, T. Anderson, A. Aggarwal, D. Becker, N. Cardwell, A. Collins, E. Hoffman, J. Snell, A. Vahdat, G. Voelker, and J. Zahorjan. "Detour: A Case for Intelligent Internet Routing and Transport." *IEEE Micro*, February 1999. Selected as an **Award Paper** at *Proc. 1998 Hot Interconnects VI* (August 1998).

R. Wang, T. Anderson, and D. Patterson. "Virtual Log-Based File Systems for a Programmable Disk." *Proc. of the 1999 USENIX Symposium on Operating Systems Design and Implementation*, February 1998.

R. Wang, A. Krishnamurthy, R. Martin, T. Anderson, and D. Culler. "Modeling Communication Pipeline Latency." *Proc. of the 1998 SIGMETRICS Conference* (June 1998).

D. Ghormley, D. Petrou, S. Rodrigues, A. Vahdat, and T. Anderson. "GLUnix: A Global Layer UNIX for a Network of Workstations." *Software Practice and Experience, Special Issue on Experience with Distributed Systems* (1998).

A. Vahdat, T. Anderson, and M. Dahlin. "WebOS: Operating System Services for Wide Area Applications." *Proc. of High Performance Distributed Systems* (1998).

S. Savage, M. Burrows, G. Nelson, P. Solbavarro, and T. Anderson. "Eraser: A Dynamic Race Detector for Multi-Threaded Programs." *ACM Transactions on Computer Systems 16*, 1 (Feb. 1998). Selected as an **Award Paper** in *Proc. of the Sixteenth ACM Symposium on Operating System Principles* (October 1997), pp. 27–37.

R. Fromm, S. Periakis, N. Cardwell, D. Patterson, T. Anderson, and K. Yelick. "The Energy Efficiency of IRAM Architectures." *Proc. of the 24th Annual International Symposium on Computer Architecture* (June 1997).

D. Patterson, T. Anderson, N. Cardwell, R. Fromm, K. Keeton, C. Kozyrakis, R. Thomas, and K. Yelick. "A Case for Intelligent RAM: IRAM." *IEEE Micro* (April 1997). Selected as an **Award Paper**, *Hot Chips VIII* (August 1996).

T. Anderson, M. Dahlin, J. Neefe, D. Roselli, D. Patterson, and R. Wang. "Serverless Network File Systems." *ACM Transactions on Computer Systems 14*, 1 (February 1996). Selected as an **Award Paper**, *Proc. Fifteenth ACM Symposium on Operating System Principles* (December 1995).

T. Anderson, D. Culler, D. Patterson, and the NOW Team. "A Case for NOW (Net-

works of Workstations)." *IEEE Micro 15*, 1 (February 1995), pp. 54–64. Selected as an **Award Paper** in *Proc. 1994 Hot Interconnects II* (August 1994).

R. Wahbe, S. Lucco, T. Anderson and S. Graham. "Efficient Software-Based Fault Isolation." *Proc. Fourteenth ACM Symposium on Operating System Principles* (December 1993), pp. 203–216.

T. Anderson, S. Owicki, J. Saxe, and C. Thacker. "High Speed Switch Scheduling for Local Area Networks." *ACM Transactions on Computer Systems 11*, 4 (November 1993), pp. 319–352. Selected as an **Award Paper** in *Proc. Fifth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS V)* (October 1992), pp. 98–110.

W. Christopher, S. Procter, and T. Anderson. "The Nachos Instructional Operating System." Selected as **Best Paper** in *Proc. 1993 Winter USENIX Conference* (January 1993), pp. 479–488.

T. Anderson, B. Bershad, E. Lazowska and H. Levy. "Scheduler Activations: Effective Kernel Support for the User-Level Management of Parallelism." *ACM Transactions on Computer Systems 10*, 1 (February 1992), pp. 53–79. Selected as an **Award Paper** in *Proc. Thirteenth ACM Symposium on Operating Systems Principles* (October 1991).

B. Bershad, T. Anderson, E. Lazowska and H. Levy. "User-Level Interprocess Communication for Shared-Memory Multiprocessors." *ACM Transactions on Computer Systems 9*, 2 (May 1991), pp. 175–198.

B. Bershad, T. Anderson, E. Lazowska and H. Levy. "Lightweight Remote Procedure Call." *ACM Transactions on Computer Systems 8*, 1 (February 1990), pp. 37–55. Selected as an **Award Paper** in *Proc. Twelfth ACM Symposium on Operating Systems Principles* (December 1989).

T. Anderson, E. Lazowska, and H. Levy. "The Performance Implications of Thread Management Alternatives for Shared-Memory Multiprocessors." *IEEE Transactions on Computers 38*, 12 (December 1989), pp. 1631–1644. Selected as an **Award Paper** in *Proc. 1989 ACM SIGMETRICS and Performance '89 Conference on the Measurement and Modeling of Computer Systems* (May 1989).

Selected Grants

DARPA, "Portolano: An Expedition Into Invisible Computing," with G. Borriello and D. Wetherall, $12M.

DARPA, "System Support for Active Network Applications," $1.25M.

DARPA, "Intelligent RAM (IRAM): A Single Chip Supercomputer," with D. Patterson and K. Yelick, $3.3M.

DARPA, "System Support for Distributed Supercomputing on a Network of Workstations (NOW)," with D. Patterson and D. Culler, $3,7M.

DARPA, "Robo-Line Storage: Low Latency, High Capacity Storage Systems over Geographically Distributed Networks," with D. Patterson and J. Ousterhout, $3.8M.

Industrial Research Sponsors

Sprint Laboratories, Hitachi Corporation, Cisco Systems, Fuji Electric, SUN Microsystems, Mitsubishi Corporation, Xerox Palo Alto Research Center, Digital Equipment Corporation, Microsoft Corporation, IBM Corporation, Hewlett-Packard Corporation, Siemens Corporation, Fujitsu, AT&T Foundation.