Jeffrey S. Chase

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Education. B.A. (*cum laude*), double major: Mathematics and Computer Science, Dartmouth College, 1985; M.S. (1989) and Ph.D. (1995) Computer Science, U. Washington (advisors: Henry M. Levy and Edward D. Lazowska).

Professional Experience. Senior Software Engineer, Digital Equipment Corporation, 1985−1994; Assistant Professor, Duke University, 1995-2002; Associate Professor with tenure in 2002; Faculty Scholar, Hewlett-Packard Laboratories, 2003−2004.

Research Interests. Chase leads Duke's Internet Systems and Storage Group, which conducts research in efficient and reliable information sharing in computer networks ranging from clusters to the global Internet. Recent research focuses on automated dynamic resource management for on-demand computing and storage utilities. Chase has published over 60 technical papers in refereed conferences and journals on topics including network storage, utility/grid computing, end-system networking, data-intensive computing, and scalable Internet services. These papers have over 950 citations recorded on *citeseer*.

Awards. IBM Faculty Award (2003 and 2004), IBM Faculty Partner (2002), NSF CAREER (1996), Intel Foundation Fellowship (1993), Digital Equipment Corporation GEEP Fellowship (1987─1989). *Award papers*: USENIX 2002, OSDI 2000.

Synergistic Activities and Service. *Director of Graduate Studies* for Duke Computer Science (2002-2005); member IBM e-Business on Demand Institute; Duke technical advisory committees for computational infrastructure; Duke Center for Computational Science, Engineering, and Medicine (CSEM); PlanetLab PI for Duke University; Technical Advisory Board member for Silverback Systems and Packet General Networks.

Recent Program Committees (2003-2005). *USENIX Technical Conference 2006, International Conference on Autonomic Computing 2006, WWW 2006 (***deputy vice-chair** for Performance, Reliability, and Scalability), *Supercomputing 2005* (**program subchair** for system software), *Third Workshop on Economics of Peer-to-Peer Systems (EconP2P 2005)*, *IEEE Computer Communications workshop* (*CCW 2004*), ACM *SIGMETRICS* 2004, *International Conference on Autonomic Computing* (*ICAC*-04), *IEEE International Symposium on High-Performance Distributed Computing* (*HPDC-13, 2004*), *3rd USENIX Conference on File and Storage Technologies* (*FAST 2004*), *First USENIX/ACM Symposium on Networked System Design and Implementation* (*NSDI 2004*), *2003 Workshop on Network I/O (NICELI/SIGCOMM)*, 2003 *Workshop on Hot Topics in Operating Systems (HotOS-IX)*, 2003 *USENIX Conference on File and Storage Technologies* (**program chair**).

Five Most Relevant Publications

1. J. Moore, J. Chase, P. Ranganathan. **Making Scheduling ``Cool'': Temperature-Aware Workload Placement in Data Centers**. In the *2005 USENIX Annual Technical Conference (USENIX '05)*, April 2005.

2. I. Cohen, M. Goldszmidt, T. Kelly, J. Symons, and J. Chase. **Correlating Instrumentation Data to System States: A Building Block for Automated Diagnosis and Control**. In the *Sixth Symposium on Operating System Design and Implementation (OSDI)*, December 2004.

3. W. Jin, J. Chase, and J. Kaur. **Interposed Proportional Sharing for a Storage Service Utility**. In the *Joint International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS/Performance)*, June 2004.

4. Y. Fu, J. Chase, B. Chun, S. Schwab, and A. Vahdat. **SHARP: An Architecture for Secure Resource Peering**. In the *19th ACM Symposium on Operating Systems Principles (SOSP)*, October 2003.

5. J. Chase, L. Grit, D. Irwin, J. Moore, and S. Sprenkle. **Dynamic Virtual Clusters in a Grid Site Manager**. In the *Twelfth International Symposium on High Performance Distributed Computing (HPDC-12)*, June 2003.

Five Other Publications

1. M. Karlsson, C. Karamanolis, J. Chase. **Controllable Fair Queuing for Meeting Performance Goals**. In *Performance 2005*, IFIP/Elsevier, October 2005.

2. D. Irwin, J. Chase, L. Grit. **Balancing Risk and Reward in Market-Based Task Scheduling**. In the *Thirteenth International Symposium on High Performance Distributed Computing (HPDC-13)*, June 2004.

3. M. Ripeanu, M. Bowman, J. Chase, I. Foster, and M. Milenkovic. **Globus and PlanetLab Resource Management Solutions Compared**. In the *Thirteenth International Symposium on High Performance Distributed Computing (HPDC-13)*, June 2004.

4. J. Chase, D. Anderson, P.Thakar, A.Vahdat, and R. Doyle. **Managing Energy and Server Resources in Hosting Centers**. In the *18th ACM Symposium on Operating System Principles (SOSP)*, October 2001.

5. D. Irwin, J. Chase, L. Grit, A. Yumerefendi. **Self-Recharging Virtual Currency**. In the *Third Workshop on Economics of Peer-to-Peer Systems (EconP2P 2005)*, August 2005.

Graduate Students Advised. Completed doctoral students: Rajiv Wickremesinghe, Ron Doyle (IBM), Ken Yocum (UCSD), Darrell Anderson (Google), Wei Jin (Shaw University), Geoff Cohen (Ernst and Young). Postdoctoral students: Stergios Anastasiadis, Wei Jin, Adriana Iamnitchi. Nine graduated MS students. Currently advising five PhD students.

Teaching. 21 semester courses: operating systems (graduate and undergraduate); graduate distributed systems; networking (graduate and undergraduate); graduate topics seminars; introduction to graduate study; freshman seminar: Six Centuries of Internetworking.

Professional Memberships. Association for Computing Machinery (ACM); USENIX Association; Computer Professionals for Social Responsibility.

Collaborators in Last Four Years. Dirk Beyer (HP), Ciprios Santos (HP), Ira Cohen (HP), Syam Gadde (Duke BIAC), Wei Jin (Shaw University), Keeton (HP), Terence Kelly (HP), Kostas Magoutis (IBM), Arif Merchant (HP), Milan Milenkovic (Intel), Julie Symons (HP), John Wilkes (HP), Margo Seltzer (Harvard), Eran Gabber (Lucent), Moises Goldszmidt (HP), Misha Rabinovich (AT&T Research), Amin Vahdat (UCSD), Jasleen Kaur (UNC), Brent Chun (Intel Research Berkeley), Steve Schwab (Trusted Information Systems), Ian Foster (U. Chicago/Argonne), Mic Bowman (Intel Research Berkeley), Keith Farkas (HP), Partha Ranganathan (HP), Christos Karamanolis (HP), Magnus Karlsson (HP), Chandrakant Patel (HP), Cullen Bash (HP), Ratnesh Sharma (HP), Rich Friedrich (HP), Stergios Anastasiadis (University of Ioannina, Greece), Adriana Iamnitchi (University of Florida), Kate Keahey (U. Chicago/Argonne), Jay Lepreau (Utah), Frank Siebenlist (Argonne).