Richard James Dunn

533 Harvard Ave E Apt 308
Seattle, WA 98102-7011
(206) 941-2533
rdunn@cs.washington.edu

Education

Dec 2002 – Present	University of Washington. Ph.D. candidate in Computer Science and Engineering. Expected graduation date: December 2005
Sep 1999 – Dec 2002	University of Washington. M.S. in Computer Science and Engineering. Project title: "The Effectiveness of Caching on a Peer-to-peer Workload."
Aug 1995 – May 1999	University of California, Berkeley. • B.S. in Electrical Engineering and Computer Science (with honors) – Course work in databases, operating systems, networks, theory. • B.A. in Mathematics – Course work in linear and abstract algebra, mathematical analysis, number theory.

Employment

March 2002 – Present	University of Washington. Research Assistant. Projects: • Analysis of P2P systems (dissertation work): Using a 9-month trace of activity on a P2P file-sharing system, analyzed the properties of the system and developed a model for simulation. Used this simulation to develop and evaluate optimizations to the system, including local-network caching and intelligent proactive replication of objects. • Application protection using virtual machines: Evaluated several techniques for maintaining strong isolation (limited interfaces) between applications within an operating system, focusing on the use of virtual machines. Briefly explored the extent of object sharing between applications.
July 1997 – June 2005	California Department of Health Services. Consultant. Developed and supported databases and user interfaces to track organization members, health-care providers, and teaching faculty.
June 2000 – May 2001	Appliant, Inc. Software Engineer/Intern. Developed NetMon, a distributed framework for recording network measurements to client web sites.
Sep 1999 – March 2002	University of Washington. Teaching Assistant. • Head TA for introductory courses • TA for introductory courses, as well as courses in operating systems and networks
Summer 1999	HyCube, Inc. Software developer. Developed a Web-based interface for a statistical database query engine.
Summer 1999	UC Berkeley. Undergraduate Research Assistant. Worked cooperatively to develop a group-aware, networked scheduling program.
Sep 1998 – May 1999	UC Berkeley Group for User Interface Research (GUIR). Undergraduate Research Assistant for NotePals project, a collaborative note-taking application. Profiled and optimized code for pen-based input on 3Com PalmPilot.

Related Skills

- Areas: Operating and distributed systems, networks, databases, peer-to-peer (P2P) systems
- Languages: C/C++, Java, Perl
- Operating Systems: Windows, Linux, Solaris
- Development environments: GDB, CVS, Developer Studio, SourceSafe

Publications

Richard J. Dunn, John Zahorjan, Steven D. Gribble, Henry M. Levy. Presence-based Availability and P2P Systems. In *Proceedings of the 5th IEEE International Conference on Peer-to-peer Computing*. August/September 2005.

Krishna P. Gummadi, Richard J. Dunn, Stefan Sariou, Steven D. Gribble, Henry M. Levy, John Zahorjan. Measurement, Modeling, and Analysis of a Peer-to-peer File-sharing Workload. In *Proc. of the 19th Symposium on Operating Systems Principles (SOSP)*. October 2003.

Stefan Saroiu, Krishna P. Gummadi, Richard J. Dunn, Steven D. Gribble, Henry M. Levy. An Analysis of Internet Content Delivery Systems. In *Proc. of the 5th Symposium on Operating Systems Design and Implementation (OSDI)*. December, 2002.

Awards & Honors

December 2002	OSDI 2002 Best Student Paper Award
May 1999	Dorothea Klumpke Roberts Prize for Excellence in Mathematics
Dec 1998 – Present	Member Eta Kappa Nu (HKN), national EECS honor society
January 1995	National Merit Finalist