

Rosie Wacha

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- OBJECTIVE** Challenging software position in systems with a focus on distributed systems, performance analysis, data reliability, or new technologies.
- EDUCATION** **M.S., Computer Science**, UC Santa Cruz 2008
Project title: Data Reliability Techniques for Specialized Storage Environments
B.S., Computer Science, Harvey Mudd College 2003
University of South Australia, study abroad, CS and math Jul 2001 – Dec 2001
- EXPERIENCE** **IBM Almaden Research Center, San Jose, CA.** Jun 2008 – Sep 2008
Graduate Level Co-op in Petascale Storage Subsystems
Designed and implemented wear leveling techniques to extend the lifetime of phase change memory.
- VMware, Inc., Palo Alto, CA.** Jun 2007 – Sep 2007
Intern in performance group
Designed and ran experiments to evaluate and optimize I/O performance for virtual machines spread across many ESX host machines. Results presented at VMworld 2007.
- Storage Systems Research Center, UCSC** Jan 2005 – Jan 2008
Los Alamos National Laboratory, Los Alamos, NM
Graduate Student Researcher
Research on analysis and prediction of scientific workloads of large clusters. Developed a tool to generate a “synthetic parallel program” that performs the same I/O as an original program, based on system call traces of that original program but with sensitive data and computation removed. Results on a 164 node cluster showed the timing of I/O requests from the synthetic parallel program closely matched those from the original program.
- Los Alamos National Laboratory, Los Alamos, NM** Jun 2004 – Sep 2004
Graduate Research Assistant
Studied data reliability for large-scale high performance file systems. Designed and developed a parallel software RAID system with diagonal parity, which provides data safety for up to two disk failures.
- Storage Systems Research Center, UCSC** Sep 2003 – Dec 2003
Graduate Student Researcher
Worked on the mobility project with a focus on power conservation in mobile computers. Specifically studied caching, file prediction, hoarding, and prefetching. Also investigated using CMU libraries to extract information from Coda traces. Developed a technique for inferring full path names for incomplete records.
- Software Engineer Intern** May 2001 – Jul 2001
iSpheres Corporation, Oakland, CA
Developed a regular expression pattern matcher in Java, including proprietary extensions. I was involved in all phases of the development: design, coding, testing, and documentation. Received praise for my ability to work independently.

PUBLICATIONS Neerja Bhatnagar, Kevin Greenan, Rosie Wacha, Ethan L. Miller, Darrell D. E. Long. Energy-Reliability Tradeoffs in Sensor Network Storage. In *Proceedings of the Fifth Workshop on Embedded Network Sensors (HotEmNets 2008)*. June 2008.

Gary Grider, Hsing-bung Chen, James Nunez, Steve Poole, Rosie Wacha, Parks Fields, Robert Martinez, Paul Martinez, Satsangat Khalsa, Abbie Matthews, and Garth Gibson. PaScal - A New Parallel and Scalable Server IO Networking Infrastructure for Supporting Global Storage/File Systems in Large-size Linux Clusters. In *Proceedings of the 25th IEEE International Performance, Computing, and Communications Conference, 2006 (IPCCC 2006)*. April 2006.

TEACHING

Teaching Assistant, UC Santa Cruz
CMPS 060N: Beginning Programming: Natural Sciences Apr 2008 – Jun 2008
CMPS 102: Introduction to Analysis of Algorithms Sep 2006 – Dec 2006
CMPS 102: Introduction to Analysis of Algorithms May 2006 – Jun 2006
CMPS 010: Introduction to Computer Science Sep 2004 – Dec 2004
CMPS/CMPE 200: Research and Teaching Sep 2004 – Dec 2004
CMPS 112: Comparative Programming Languages Jan 2004 – Mar 2004
Course Assistant, Harvey Mudd College
CS 140: Algorithms Aug 2002 – May 2003

**ACADEMIC
HONORS /
LEADERSHIP**

Co-President, eWomen, student organization, UCSC 2006
Outstanding Technical Presentation, LANL 2006
Outstanding Oral Presentation, LANL 2005
GAANN Fellowship, UCSC 2005 – 2008
UC Regents' Fellowship, UCSC 2003 – 2004

**COMPUTER
SKILLS**

Languages & Software: C/C++, Java, MPI, Perl, Python
Operating Systems: Linux, UNIX, OS X, Windows