

# Rosie Wacha

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rwacha@cs.ucsc.edu

- OBJECTIVE** Challenging research position in Storage Systems where I can apply my agility and problem solving skills to innovate in the field, particularly focused on parallel applications, performance, data reliability, or new technologies.
- EDUCATION** **Ph.D. Student, Computer Science, UC Santa Cruz** 2003 – present  
*Advisor: Darrell Long*  
Current research on automatic RAID reconfiguration.
- B.S., Computer Science, Harvey Mudd College** 2003
- University of South Australia, study abroad, CS and math** Jul 2001 – Dec 2001
- EXPERIENCE** **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 2008 – Jan 2008  
*Graduate Student Researcher*  
Research on analysis and prediction of scientific workloads of large clusters. Developed a tool which aids in the analysis of file system performance and workloads for parallel file systems. The tool generates a “synthetic parallel program” that performs the same I/O as an original program, based on system call traces of that original program. The secret data in the original program is removed as a result of this process, providing a program that can be shared with other researchers.
- Los Alamos National Laboratory** Jan 2005 – Sep 2006  
*Graduate Research Assistant*  
Worked on synthetic application project in collaboration with UCSC. Detailed description above.
- Los Alamos National Laboratory** 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** 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 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 – present  
**UC Regents' Fellowship**, UCSC 2003 – 2004

**COMPUTER SKILLS** *Languages & Software*: C/C++, Java, MPICH, Perl, PHP, PostgreSQL  
*Operating Systems*: Linux, UNIX, OS X, Windows