Aleatha Parker-Wood

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Boulder Creek, CA 95006
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EDUCATION

⋄ **Ph.D. Student, Computer Science**
University of California, Santa Cruz
Academic Advisor: Professor Darrell D.E. Long

⋄ **M.S., Computer Science**, June 2010
Thesis: "Security Aware Partitioning for Efficient File System Search"
University of California, Santa Cruz
Academic Advisor: Professor Ethan Miller

⋄ **B.S., Computer Science**, June 2008
University of California, Santa Cruz
Honors in Major

RESEARCH INTERESTS

⋄ Information retrieval, search ranking, scalable file system search, search personalization, distributed file systems, security, natural language processing.

CURRENT RESEARCH

⋄ Using rich metadata and provenance to improve the ranking and naming of file system search results.

REFEREED PUBLICATIONS

⋄ Stephanie N. Jones, Christina R. Strong, Aleatha Parker-Wood, Alexandra Holloway, and Darrell D. E. Long, "Easing the Burdens of HPC File Management", *6th Parallel Data Storage Workshop (PDSW 2011)*, Nov 2011.

⋄ Simson L. Garfinkel, Aleatha Parker-Wood, Daniel Huynh, Jessy Cowan-Sharp and James Migletz, "An Automated Solution to the Multi-User Carved Data Ascription Problem", *IEEE Transactions on Information Forensics and Security*, December 2010.

⋄ Aleatha Parker-Wood, Christina Strong, Ethan L. Miller, Darrell D. E. Long, "Security Aware Partitioning for Efficient File System Search", *26th IEEE Symposium on Massive Storage Systems and Technologies: Research Track (MSST 2010)*, May 2010.

⋄ David P. Helmbold, Aleatha Parker-Wood, "All-Moves-As-First Heuristics in Monte-Carlo Go," *Proceedings of the 2009 International Conference in Artificial Intelligence*, July 2009.

TECHNICAL REPORTS

⋄ Andrew W. Leung, Aleatha Parker-Wood, Ethan L. Miller, "Copernicus: A Scalable, High-Performance Semantic File System," Technical Report UCSC-SSRC-09-06, October 2009.

INVITED TALKS

⋄ Aleatha Parker-Wood, Darrell D. E. Long, "High Quality Search Results for HEC", HEC-FSIO 2011 Conference, August 8, 2011

⋄ Aleatha Parker-Wood, "Improving File System Management in a Resource Constrained Environment", Intern Talk, IBM Almaden, June 2, 2011

⋄ Aleatha Parker-Wood, Christina Strong, Ethan L. Miller, Darrell D. E. Long, "Security Aware Partitioning for Efficient File System Search", Universit Paris-Dauphine, January 19th, 2011.

◇ **A**leatha Parker-Wood, Christina Strong, Ethan L. Miller, Darrell D. E. Long, "Security Aware Partitioning for Efficient File System Search", Oracle, August 5, 2010.

POSTER PRESENTATIONS

◇ **A**leatha Parker-Wood and Darrell D. E. Long, "File System Management Through Rich Metadata and Provenance, "*Early Adopters Ph.D. Workshop*, Seattle, WA, Nov 14, 2011.

◇ **S**tephanie N. Jones, Christina R. Strong, Aleatha Parker-Wood, Alexandra Holloway, and Darrell D. E. Long, "Easing the Burdens of HPC File Management", *6th Parallel Data Storage Workshop (PDSW 2011)*, Seattle, WA, Nov 13, 2011.

◇ **A**leatha Parker-Wood, "Security Aware Partitioning for Efficient File System Search, "*University of California, Santa Cruz, Graduate Research Symposium*, Santa Cruz, CA, May 14, 2010.

◇ **A**leatha Parker-Wood, "Security Aware Partitioning for Efficient File System Search, "*8th USENIX Conference on File and Storage Technologies (FAST '10)*, San Jose, CA, February 2326, 2010.

◇ **A**leatha Parker-Wood, "Security Aware Indexing for Large File Systems," *University of California, Santa Cruz, Graduate Research Symposium*, Santa Cruz, CA, May 15, 2009.

◇ **A**leatha Parker-Wood, "Bolstering computer Go with more relevant information", *Undergraduate Research Poster Symposium*, Santa Cruz, CA, June 5, 2008.

GRADUATE COURSEWORK

◇ **Completed**
Information Retrieval, Data Mining, Advanced Computer Security, Advanced Operating Systems, Programming Languages, Algorithms Analysis, Distributed Systems, Bayesian Statistics, Storage Systems.

GRADUATE RESEARCH AND CLASS PROJECTS

◇ **Fast Security-Aware Search on Partitioned File Systems**
Operating Systems
Professor Ethan Miller, University of California, Santa Cruz

◇ **Full Text Indexing Behavior in a Large File System**
Distributed Systems
Professor Ethan Miller, University of California, Santa Cruz

◇ **Examining Properties of Rich Metadata and Indexing**
Storage Systems
Professor Darrell Long, University of California, Santa Cruz

◇ **Evaluating the Usefulness of Metadata for File System Ranking**
Information Retrieval
Associate Professor Yi Zhang, University of California, Santa Cruz

◇ **Attempting to Disambiguate People on the Web Using Named Entities**
Data Mining
Kai Yu, NEC Labs USA, while teaching at University of California, Santa Cruz

◇ **Using Packet Sizes in Encrypted VoIP for Speaker Identification**
Computer Security
Professor Darrell Long, University of California, Santa Cruz

◇ **Attribute Extraction from Free Text Advertisements**
Programming Languages
Associate Professor Cormac Flanagan, University of California, Santa Cruz

REVIEWER

◇ **MASCOTS 2010** 18th Annual Meeting of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems

UNDERGRADUATE
COURSEWORK

⋄ **M**achine Learning, Artificial Intelligence, Cryptography, Operating Systems

UNDERGRADUATE
CLASS
PROJECTS

⋄ **Investigating Variations on the All Moves As First Heuristic for Computer Go**
Independent Study
Professor David Helmbold, University of California, Santa Cruz

⋄ **Medical Case Classification Using Free Text**
Machine Learning
Professor David Helmbold, University of California, Santa Cruz

⋄ **Team Awesome's Go: two player networked Go**
Software Methodology
Lecturer and Associate Researcher Linda Werner, University of California, Santa Cruz

OTHER
PUBLICATIONS

⋄ **P**eter C. Norton, Alex Samuel, Dave Aitel, Eric Foster-Johnson, Leonard Richardson, Jason Diamond, Aleatha Parker, Michael Roberts, *Beginning Python*, Wrox Press, 2005.

⋄ **R**ay Rischpater, Aaron Wood, Aleatha Parker-Wood, "Cross-platform Builds Made Easy: From Microsoft Visual Studio to ARMCC Using Ant and XSL", DevX.com, 2005.

EMPLOYMENT
HISTORY

⋄ **Graduate Student Researcher** January 2008 – present
Storage Systems Research Center, University of California Santa Cruz, Santa Cruz, CA
Researching search optimized file systems and file system ranking algorithms.

⋄ **Research Scientist** August 2010 – June 2011
IBM Almaden, San Jose, CA
Researched improvements in file system management using structured data search techniques.

⋄ **Research Assistant of Computer Science** June 2009 – October 2009
Naval Postgraduate School, Monterey, CA
Researched machine learning techniques for ascribing files to users on multi-user file systems.

⋄ **Teaching Assistant** September 2008 – December 2008
Professor Ethan Miller, University of California Santa Cruz, Santa Cruz, CA
Intro to Programming in Python. Graded assignments, mentored students, served as guest lecturer.

⋄ **Computer Scientist III** August 2006 – September 2008
Adobe Software, San Jose, CA
Developed and architected localization-friendly publication system and help client for all Adobe products. Maintained full text client-side documentation search. Transformed unstructured documents into structured formats.

⋄ **Web Developer** October 2005 – August 2006
Contract for Adobe Software, San Jose, CA Developed and architected localization-friendly publication system and help client for all Adobe products. Maintained full text client-side documentation search. Transformed unstructured documents into structured formats.

⋄ **Publications Engineer** May 2003 – October 2005
Borland Software Co., Scotts Valley, CA
Developed publication system. Transformed unstructured documents into structured formats. Led a team of up to 5 people.

⋄ **Web Applications Developer** October 2001 – April 2002
Mongoose Sports, Redwood City, CA

⋄ **Professional Services Consultant** June 2000 – June 2001
Mediasurface, Inc., San Francisco, CA

- ⋄ **Internal Webmaster** January 2000 – June 2000.
  Contract for Hewlett Packard, Boise, ID

- ⋄ **Email Administrator/Technical Lead** March 1999 – Jan 2000.
  Contract for Hewlett Packard, Boise, ID

- ⋄ **Printer Test Lead** October 1997 – March 1999.
  Contract for Hewlett Packard, Boise, ID