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SARA ALSPAUGH
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EDUCATION

University of Virginia, Charlottesville, Virginia, expected May 2009
Bachelor of Arts in Computer Science with minor in Mathematics
Echols Scholar (Honors College of Arts & Sciences)
G.P.A.: 3.974

WORK EXPERIENCE

Research Assistant, Information Sciences Institute, May 2008—present

- Implemented and evaluated a rule-engine based service for Virtual Organization level policy-driven data management in grids
- Wrote a final paper in addition to publishing a poster of the final results at SC08

Undergraduate Teaching Assistant, University of Virginia, Aug 2007—present

- Served as Teaching Assistant for CS 101, Introduction to Computer Science, and CS 202, Discrete Math
- Contributed to weekly course staff meetings, grade homework, answer student emails, assist students with material

Undergraduate Research Assistant, University of Virginia, May 2007—Aug 2007

- Created interface between two systems in order to test the efficiency and effectiveness of prioritization algorithms on two case study test suites
- Researched knapsack algorithms in the context of software test suite prioritization methods and published results

Undergraduate Research Assistant, Global Mammal Assessment, Oct 2006—May 2007

- Edited and managed thousands of species' data and finalized data using GIS and spreadsheet tools
- Recorded and updated thousands of references with EndNote reference managing software

Student Assistant, Alderman Library, University of Virginia, Aug 2006—Oct 2006

- Organized and catalogued approximately 150 items per day, assisted in administration of daily activities

RESEARCH EXPERIENCE

Policy-Driven Data Placement in Grids, May 2008—present

- Implemented and evaluated a Policy-Driven Data Placement Service for high-performance scientific computing environments or grids that uses a rule-engine to enforce Virtual Organization level policies for ongoing data management

Regression Test Suite Prioritization Methods, May 2007—Nov 2007

- Evaluated the effectiveness and efficiency of various methods for reordering regression test suites such that the reordering rapidly cover test requirements and execute within a specified time limit

Satellite Image-Based Land Cover Classification Analysis, Jan 2007—May 2007

- Studied correlation between average monthly precipitation and percent vegetation on Virginia's Eastern Shore for the years 1981-2001 using various image processing and statistical techniques

PUBLICATIONS AND PRESENTATIONS

Sara Alspaugh, Ann Chervenak, and Ewa Deelman. **Policy-Driven Data Management for Distributed Scientific Collaborations Using a Rule Engine**. ACM Student Research Competition Best Undergraduate Student Poster in the Proceedings of The International Conference for High Performance Computing, Networking, Storage and Analysis. Austin, Texas, November 2008.

Sara Alspaugh and Ann Chervenak. **Policy-Driven Data Management for Distributed Scientific Collaborations Using a Rule Engine**. CRA-W Distributed Mentor Project Final Report. September 2008

Sara Alspaugh, Kristen R. Walcott, Michael Belanich, Gregory M. Kapfhammer, and Mary Lou Soffa. **Efficient Time-Aware Prioritization with Knapsack Solvers**. In the Proceedings of the ASE 2007 Workshop on Empirical Assessment of Software Engineering Languages and Technologies. Atlanta, Georgia, November 2007.

Sara Alspaugh. **Presentation of Efficient Time-Aware Prioritization with Knapsack Solvers**. Presented at the ASE 2007 Workshop on Empirical Assessment of Software Engineering Languages and Technologies. Atlanta, Georgia, November 2007.

ACTIVITIES

SC08, Nov 2008

CRA-W Distributed Mentor Project, May 2008—Sept 2008

Association for Computing Machinery for Women, Undergraduate President, Jan 2008—present

Arts & Science Council Finance Committee FSI Grant Chair, Jan 2008—present

Arts & Sciences Council Computer Science Department Representative, Jan 2008—present

Grace Hopper Conference, Oct 2007, Oct 2008

Association for Computing Machinery for Women, Jan 2007—present

Sigma Alpha Lambda, Aug 2007—present

Echols Scholars Program, Aug 2005—present

HONORS

ACM Student Research Competition Best Undergraduate Student Poster at SC08, Nov 2008

Hertz Fellowship Finalist, Nov 2008

SC08 Student Volunteer, Nov 2008

SC08 Poster Session ACM Student Competition Finalist, Nov 2008

Computing and Communication Scholarship for Undergraduate Women, Aug 2008

Phi Beta Kappa, Apr 2008—present

Golden Key, Apr 2008—present

Google Workshop for Women Engineers, Feb 2008

Association for Computing Machinery Collegiate Programming Contest Third Place Regional Prize, Oct 2007

College of Arts & Sciences Intermediate Honors, Oct 2007

Computing and Communication Scholarship Finalist, Jun 2007

Dean's List, Aug 2005—present

National Merit Scholar, May 2005

Storer Scholarship, May 2005—present

COMMUNITY SERVICE AND TRAVEL

ACM-W Computer Science Educational Outreach to Local Schools, Oct 2008

Institute for Integrated Rural Development in Bangladesh, volunteer, Mar 2006

Study Abroad at Pontificia Universidad Católica del Perú, May 2006 – Aug 2007

English as a Second Language tutor, Aug 2005—May 2006

Charlottesville High School tutor, Aug 2005—Dec 2005

Boys and Girls Club volunteer, Aug 2005—Dec 2005

TEENS GIVE tutor, Aug 2005—Dec 2005

Motivate Our Minds volunteer, May 2005—Aug 2005