

Austin Reilley Benson

Berkeley, CA

<http://arbenson.github.com>

Objective

- Fall 2012 admission to a computer science PhD program with a research emphasis in high-performance computing, numerical linear algebra, and/or distributed systems

Education

- University of California, Berkeley Expected Graduation May 2012
 - B.S. Computer Science and Engineering
 - B.A. Applied Mathematics (algorithms emphasis)
 - GPA: 3.86/4.0
 - Coursework: (CS) Operating systems, parallel computing, artificial intelligence, algorithms; (Math) Matrix computations, numerical analysis, probability theory, stochastic processes, algebra, analysis

Research and Work Experience

- **Google, Inc.** May 2011-August 2011
Software Engineering Intern, Google Chrome Team
 - Designed and implemented the nacl-mounts library: a pluggable user-space file system for Google's Native Client which allows for storage to various back-end devices
 - Increased the distribution of the naclports build system from 3 to 26 machines
- **University of California, Berkeley** August 2011-Present
Undergraduate Researcher, Computer Science Division, Berkeley Benchmarking and Optimization Group
Advisor: Professor James Demmel
 - Researching parallel algorithms for numerical linear algebra in cloud computing environments
 - Exploring methods in optimizing of communication-avoiding numerical linear algebra algorithms
- **Domestic Nuclear Threat Security Initiative** June 2010-Present
Research and Software Engineering Intern
 - Developing an object-oriented, parallel, and multi-platform framework for implementing nuclear detector software for detecting nuclear sources and preventing nuclear threats in real time
 - Responsible for data analysis module, dynamic code generation tools, and software tests
- **University of California, Berkeley** April 2010-October 2010
Undergraduate Researcher, Department of Industrial Engineering and Operations Research
Advisor: Professor Dorit Hochbaum
 - Implemented Matlab software for analysis of MRI sequences of 160 patients from medical studies on patterns of development of knee osteoarthritis

Involvement

- Member, Tau Beta Pi, The Engineering Honor Society
- Member, Eta Kappa Nu, The Electrical Engineering and Computer Sciences Honor Society
- Member, Alpha Pi Mu, The Industrial Engineering and Operations Research Honor Society
- Lab Assistant, CS 61C-Great Ideas in Computer Architecture

Skills

- Languages: (Proficient): C, C++, Java, Python, Matlab, bash; (Experience): Perl, JavaScript
- Misc. Computing Tools: Apache Hadoop, Google App Engine, Qt, LaTeX, CUDA, OpenMP, MPI, git, svn
- Operating Systems: OS X, Linux, various UNIX flavors