# Austin Reilley Benson

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## Objective

- Fall 2012 admission to computer science Ph.D. program with research emphasis on high-performance computing, numerical linear algebra, and 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 nacl-mounts library, a pluggable user-space file system for Google's Native Client for storage to various back-end devices
  - Increased distribution of naclports build system from 3 to 26 machines
- **University of California, Berkeley** April 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 communication-avoiding optimizations for matrix computations in Apache Hadoop
- **Domestic Nuclear Threat Security Initiative** June 2010-Present
  *Undergraduate Researcher and Software Engineer*
  - Developing parallel and multi-platform framework for implementing nuclear detector software that detects nuclear sources and prevents nuclear threats in real time
  - Responsible for data analysis, dynamic code generation tools, parallelization, and scalability
- **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 patients from medical studies on patterns of development of knee osteoarthritis

## Additional Activities and Affiliations

- Research Affiliate, Lawrence Berkeley National Laboratory
- Laboratory Assistant, CS 61C–Great Ideas in Computer Architecture
- 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

## 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