

# Daniel Crankshaw

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## EDUCATION

**Johns Hopkins University (JHU), Baltimore, MD**

***Expected May 2013***

Bachelor of Science Engineering

Double Major in Computer Science and Physics

GPA: 3.85, Dean's List – Spring 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012

### **Relevant Coursework**

Machine Learning, Database Systems, Parallel Programming (Hadoop, MPI, CUDA), Object Oriented Software Engineering (Semester long group project in Java), Computer Networks, Algorithms, Linear Algebra, Differential Equations, Multivariable Calculus, Probability and Statistics

## AWARDS

**Joseph C. Pistritto Research Fellowship**

***May 2011***

**JHU Computer Science Department, Baltimore, MD**

- Undergraduate Computer Science research award to foster excellence in undergraduate research
- Awarded based on student research proposal and faculty recommendations

## WORK EXPERIENCE

**Software Engineering Intern, Google**

***June 2012 – August 2012***

**Seattle, WA**

- Worked on an internal continuous data processing engine used by many other Google teams
- Developed an API to add new functionality to the engine, along with unit tests and integration tests to ensure correctness and usability (C++)
- Used the API to refactor an internally developed tool in use by several teams

**Computer Science Research**

***January 2011 – present***

**Hopkins Storage Systems Lab, Baltimore, MD**

- Worked with large-scale N-body dark matter simulation data as part of a collaborative project between the Physics and Computer Science departments
- Optimized data storage for a 900 TB database by creating and analyzing efficiency tests on possible storage configurations
- Developed a set of tools for physicists to allow them to efficiently query and analyze the data (C# and Python)
- Built an application that streamlines, automates, and parallelizes the process of loading the results of the simulation into a SQL Server database (C#)
- Presented a poster on research findings at Winter 2012 meeting of the American Astronomical Society

**Physics and Calculus Peer Tutor**

***September 2010 – May 2011***

**JHU Whiting School of Engineering, Baltimore, MD**

- Led group problem solving sessions for 8-10 engineering students

**Web Marketing, Billiards.com**

***June 2009 – August 2009***

**Mountain View, CA**

- Wrote copy for an e-commerce website
- Conducted market research for a subsidiary company that trades generic domain names

## SKILLS

**Computer Languages and Proficiencies**

Java, C, C#, Python, C++, Microsoft SQL Server, Hadoop, Git

## **ACTIVITIES**

### **Rock Climbing Instructor**

***October 2010 – May 2012***

#### **JHU Outdoor Pursuits, Baltimore, MD**

- Led 8 incoming freshmen on a week long climbing and camping trip the last week of summer
- Led rock climbing day trips during the semester
- Training includes NOLS Wilderness First Responder (80 hours), Hopkins Outdoor Leadership Training, a 10 day backpacking and leadership skills course, and a five day technical rock climbing training course

### **4K for Cancer Rider**

***December, 2009 – July, 2010***

#### **4K for Cancer, Baltimore, MD**

- Raised \$4,500 in the Spring 2010 semester to donate to the American Cancer Society and the Sidney Kimmel Comprehensive Cancer Center for cancer research and patient care
- Biked 4000 miles across the United States from Baltimore, MD to San Francisco, CA to spread awareness about cancer and continue to raise funds
- Interacted daily with the local communities to educate about cancer prevention by presenting on early warning signs and lifestyle changes to reduce risk of cancer
- Volunteered at several clinics across the country to foster hope among cancer patients

### **Beta Theta Pi Fraternity Scholarship Chair**

***May 2010 – December 2010***

- Interviewed and evaluated candidates for a \$500 academic scholarship given out to Hopkins freshmen
- Organized an awards banquet to present scholarships to the winners