

Daniel Crankshaw
Applying to Computer Science Department

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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
Seattle, WA**

June 2012 – August 2012

- 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
Mountain View, CA**

June 2009 – August 2009

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

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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