Work Experience

Kahuna

Mobile Developer
Bain Capital Ventures StartUp Academy
Mountain View CA, Dec 2012 - Jan 2013

Goldman Sachs

Summer Analyst
Dynamic Computing Group
New York NY, Jun 2012 - Aug 2012

NASA Goddard Space Flight Center

Program Manager Intern Software Integration and Visualization *Greenbelt MD, Aug 2009 – Jan 2011*

NASA Goddard Space Flight Center

Software Engineering Intern Greenbelt MD, Jun 2008 – Aug 2009

U.S. National Security Agency

Cybersecurity Research Assistant
College Park MD, Sep 2012 - Dec 2012

Bechtel Corporation

Six Sigma Strategy Intern
Frederick MD, Jan 2012 – May 2012

Building iOS and Android SDKs and native application at an early stage mobile analytics startup. Created iOS and Android static libraries that implement HTTP POST, batching, network reachability awareness, and data persistence (Core Data & SQLite). iOS SDK in production and currently used by customers.

Designed, developed, and put into production a web application to monitor and proactively resize underutilized Virtual Machines for Goldman Sachs' Private Cloud. Analyzed economics and adoption strategies of cloud computing. Tested UX, HCI and User Acceptance. Applied Sencha ExtJS 4, Ajax, HTML and CSS front-end. Used SQL and Hibernate to create back-end.

Directed design of data visualization and user interface for SaaS cloud computing platform and supercomputing networks in Climate@Home endeavor. Analyzed metrics, examined logs, and engaged in beta tests to lead rapid prototyping of user interface. Communicated with NASA managers to improve software user interface and data visualization standards.

Performed "Big Data" analytics through Fortran and Unix scripting on NASA supercomputers. Created data visualizations and developed algorithms to run climate models 200% more efficiently. Presented findings in formal papers and presentations.

Researched hardware and software vulnerabilities of Android OS, NFC and Cloud Computing. Published and provided the NSA with a white paper detailing the current state of mobile cybersecurity and recommendations based on previous research.

Utilized Lean and Six Sigma DMAIC methodology to optimize engineering processes and examine impact on revenue. Implemented ANOVA, Multivariate Regression and Pareto Analysis. Awarded Six Sigma Green Belt in May 2012.

Education

University of Maryland

B.S. Mechanical Engineering (Honors) *College Park MD, Expected: May 2013*

Minor in Technology Entrepreneurship

President's and A. James Clark School of Engineering Merit Scholarships

GPA: 3.71/4.0, SAT: 99th Percentile, Graduate Coursework: Program Management (ENME808Q)

Leadership Experience

Silicon Valley Innovation Practicum

Student Entrepreneur
San Francisco CA, May 2012

Awarded scholarship to observe disruptive technological innovation and startup culture in the Silicon Valley. Toured large-scale tech companies, start-ups, and venture capital firms including Google, Facebook, Amazon Lab 126, Pixar, Cisco, Greylock Partners, and the Mayfield Fund.

A. James Clark School of Engineering

Teaching Fellow

College Park MD, Spring '11 – Fall '11

Selected to assist in teaching three engineering courses: statics, dynamics, and thermodynamics (ENES102, ENES221, ENME232) to more than 150 undergraduate students. Taught discussions, conducted exam reviews and held office hours.

Hinman CEOs Program

Student Entrepreneur

College Park MD, Spring '11 – Present

Create financial models, business plans and investor presentations for software start-up ventures. Take courses in Entrepreneurial Opportunity Analysis, Design Thinking, Business Model Generation, and High-Tech Marketing.

Personal Projects

Allied for Life

September 2012 - Current

Creating an iOS application that displays natural disasters currently occurring in the world with options to donate. Using MapKit, Twitter Search, and PayPal APIs.

When Works

September 2012

Worked collaboratively to create a Facebook event scheduling web application. Won 3rd place at the Facebook New York Hackathon 2012. (www.whenworksapp.com)

Technical Skills

Mobile: iOS and Android, Objective-C, XCode 4, Eclipse ADT **Programming:** Java, Python, C, Fortran, Matlab, Unix

Web: JavaScript, JSP, Servlets, XML, jQuery, ExtJS 4, Ajax, HTML5, CSS **Database:** SQL, Aqua Data Studio, Hibernate Java Persistence

UI/UX: Balsamiq, Mockingbird, Adobe CS5, Gimp

Certifications and Coursework

Certifications: NASA – Information Technology, Structured Fortran 77, Satellite Engineering and Design; UMD - Six Sigma Green Belt **Relevant Coursework:** Lean Six Sigma Strategy and Methods, Design Thinking, Advanced Entrepreneurship Opportunity Analysis, Marketing High-Technology Products, Product Engineering