Zachary Lawrence

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EDUCATION

Bachelor of Science, Computer Engineering — Expected May 2016
University of Maryland, College Park, MD

- Current Cumulative GPA: 3.7/4.0
- Current Major GPA: 3.7/4.0

COMPUTER SKILLS

Languages: Java, C, JavaScript, Python, SQL
Platform Frameworks: Amazon Web Services (EC2), JBoss Application Server, Tomcat, Heroku, Vagrant, MySQL, Ozone Widget Framework, Arduino, Android
Software: JAX-RS (RESTEasy/Jersey), JDBC, Maven, Django, D3, Git, JUnit

WORK EXPERIENCE

Google — Summer 2014
Engineering Practicum Summer Intern

- Collected metrics and improved reliability of internal Google tool by designing and developing a load testing framework based on HTTPS and RPC requests.
- Wrote multiple bug fixes by communicating between various internal Google divisions to determine the ideal solution for the most users.

ITT Exelis: Geospatial Systems — Summer 2013
Software Engineer Summer Intern

- Researched the Ozone Widget Framework and created numerous widgets to demonstrate key concepts and ideas.
- Designed and implemented a RESTful web service to provide advanced analytics for image management and manipulation within the Ozone Widget Framework.

Human-Computer Interaction Lab — Fall 2013 - Current
University of Maryland, Undergraduate Research

- Assisting Professor Jon Froehlich and Ph.D. Student Kotaro Hara on a project that uses images from Google Street View to locate sidewalk accessibility issues.
- Improved sidewalk detection rates by developing python code based on OpenCV.
- Used D3 to create a researcher dashboard to render pertinent statistical models.

ADDITIONAL ACTIVITIES

Hackathons

- MHacks: First Place — Fall 2013
  - Worked with 2 colleagues in 36 hours to design, create and code a single stream recycling bin that sorts recyclable and non-recyclable materials.
- Bitcamp: Microsoft Awarded Best Hack — Spring 2014
  - Spent 36 hours independently designing and creating a web service for real-time translation of SMS messages between two phones.

Engineers Without Borders — Fall 2012 - Spring 2013
University of Maryland Chapter: Peru Water Purification Project

- Investigated, designed and implemented a water purification system within a remote town in Compone, Peru.
- Selected, with 5 other undergraduate students out of a group of 70, to travel to Compone and conduct research on the water distribution system.