

## Kellen Donohue

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### EDUCATION

**University of Washington**, Seattle, WA

**M.S. Computer Science and Engineering**, June 2013

**B.S. Computer Engineering**, June 2012, Cum Laude

**B.A. Political Science**, June 2012, Cum Laude (Minor: Applied Mathematics)

**Overall GPA: 3.81**

Bothell High School, GPA: 4.00 (Rank 1 of 542), Valedictorian

### INDUSTRY EXPERIENCE

#### **Palantir Technologies**

Forward Deployed Software Engineer: July 15 - Present

- Worked with multi-national investment bank to develop tools to fight money laundering, fraud, rogue traders, and cyber-security threats
- Integrated transaction, account, and client information from 30 data sources into a single platform, processing 10 TB of data per day
- Implemented data processing strategies with **Spark**, **Elastic Search**, **Groovy**, and **HDFS**.

#### **Google – Helpouts, Hangouts**

Software Engineer: July 13 – July 15

- Completed front-end projects, primarily in **Java**, **JavaScript**, **HTML5**
- Developed end-to-end system allowing 3<sup>rd</sup> parties to offer Helpouts to their own members, including 3<sup>rd</sup> party web authentication
- Implemented **unified notification** system for user notifications and user discussions across iOS, Android, SMS, web, and email.
- Worked on projects ensuring legal compliance, including HIPAA and Terms of Service serving and acceptance recording in **Megastore**
- Integrated results from **distributed systems** throughout Google into product, including IP geolocation and search query autocomplete
- Developed UI control mechanism for Chromebox for Meetings devices

#### **Facebook – Platform**

Software Development Intern: June 12 - September 12

- Developed send-to-mobile, a system for delivering mobile app install notifications to Facebook users in **PHP**, **XHP**, and **JavaScript**
- Project served **millions of impressions** and 1000s of conversions daily
- Implemented detailed **logging**, performed **A/B testing** and **analysis**
- Created **embeddable social plugin** to drive users' web traffic to mobile app installs

#### **Google – Cloud Computing Infrastructure**

Software Development Intern: June 11 - September 11

- Coded for Google Compute Engine in **Java**, **C++**, and **Python**
- Created **persistent disk hot-swapping** ability, allowing users to attach and detach persistent disks from running Google Compute instances
- Designed API components, implemented request handling on server, and distribution of **RPC's to massively distributed systems**

#### **Facebook – Advertiser Success**

Software Development Intern: June 10 - September 10

- Created framework for surfacing individual advice for ~125k advertisers
- Developed **Hadoop/Hive** queries to generate these custom suggestions
- Utilized **PHP** and **JavaScript** to display the contextual tips through a variety of channels including an online diagnostic tool, weekly emails,

during the ad creation process, and Facebook notifications

### **Microsoft Research – Interactive Visual Media**

Research Intern: June 09 - September 09

- Implemented **WPF** user interface for panoramic stitching program, including structured mode for stitching 100s of photographs
- Built managed **C++** wrapper for communication between stitch engine backend and user interface
- Restructured stitching workflow to improve user experience

### **Microsoft – Expression Imaging**

High School Intern: June 08 - September 08

- Developed unit tests for image processing utility in **C#**
- Created testing utility to synchronize web tests and unit tests

## **RESEARCH INVOLVEMENT**

**.NET Daikon Compiler Front-End** – under Professor Michael Ernst

Research Assistant: October 10 – June 2013

- Paper entitled “Writing and Enforcing Contract Specifications” published *International Conference on Software Engineering 2013*
- Created program to modify **C#** programs by inserting calls to visit variable and fields at beginning and exit of methods, reflectively inspecting variable contents and recursively visiting fields.

**LiCORICE Project** – under Professor Mark Zachry

Student Assistant: October 09 – June 10

- Maintained **Ruby** scripts compiling data on Wikipedia articles and television broadcast transcripts from **mySQL database** in XML format

## **OPEN-SOURCE CONTRIBUTION**

**Github:** [@melonhead901](#)

**Google Code:** <http://code.kellendonohue.com>

**Bitbucket:** <https://bitbucket.org/kellend/>

- Team project to create a specimen tracking system for UW Med Center,
- System comprised Ruby on Rails webserver and Android app for couriers
- My responsibility was communication between the Android and web servers and the build and integration test servers.
- Research work as described above.

## **TECHNICAL SKILLS**

Knowledgeable in: **C#, Java, HTML5, JS, CSS, PHP**

Experience with: Unix, Ruby+Rails, WPF, Python, C++, SQL, Android

Exposure to: C, ML, MATLAB, Hive

Relevant Coursework: All undergraduate coursework for Bachelor’s Degree, as well as Graduate Level Programming Languages, AI, Distributed Systems, Compilers, Security, Software Engineering

## **AWARDS / SCHOLARSHIPS**

- Dean’s List, Quarterly and Annual (All Quarters and Years)
- Washington Scholar (Full Tuition)
- NASA Space Grant Scholar

## **WEBSITE**

<http://www.kellendonohue.com>

