# Kellen Donohue

Cell (206)-661-5275 1135 25th Avenue
jobs@kellendonohue.com Seattle, WA 98122


## 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

- Tech lead of several ~6-engineer teams creating data management solutions for variety of clients. Example projects:
  - Developed manufacturing data procesing system using **Spark, HDFS, Elastic Search** for large automobile manufacturer to provide near-real time detection of safety and quality issues
  - **Entity resolution** pipeline investigation framework for multinational bank processing **1 TB/day** from over 60 data sources
  - Member engagement and provider data integrity system and web applications for nationwide insurance company with **Groovy, PSQL, AngularJS, React/Redux, Dropwizard**
- Developed web app and **PySpark** pipeline for cyber security vulnerability management, ingesting data from **SCCM, SCOM, Qualys, Service Now**

**Google – Helpouts, Hangouts**
Software Engineer: July 13 – July 15

- Completed front-end projects, primarily in **Java**, **JavaScript**, **HTML5**.
- Developed end-to-end system allowing 3rd parties to offer Helpouts to their own members, including 3rd party web authentication.
- Implemented **unified notification** system for user notifications and user discussions across iOS, Anrdoid, 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.

**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**, serving **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 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.

**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:** https://github.com/melonhead901
**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, Python, HTML5, JS, CSS, PHP**
Experience with: Unix, Ruby+Rails, WPF, C++, SQL, Android
Exposure to: C, ML, MATLAB, Hive

Graduate Level Focus: Programming Languages, AI, Distributed Systems, Compilers, Security, Software Engineering

## AWARDS / SCHOLARSHIPS

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