

Aaron Harris

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Education

B.S. Mechanical Engineering, Computer Science Minor
University of Southern California, Los Angeles, CA
Queen Mary, University of London, United Kingdom

May 2015
GPA: 3.4
Abroad Semester Spring 2013

Technical Skills

Java (5 yr), Ruby/Rails MVC (3 yr), jQuery/JavaScript, Python, HTML5/CSS3, AngularJS, PHP, SQL/NoSQL, Git, ArcGIS, GeoSPARQL/RDF Semantic DBs, Test-driven Dev, Cont. integration, basic Android apps, Linux/Win/Mac

Work Experience and Research

Cloud Sherpas, Inc., Geospatial Intelligence Group Software Intern **Jun 2014 – Aug 2014**

- Refactored and improved a business intelligence tool for a large telecom provider using **Google Maps Engine**
- Built full-stack GPS-enabled web app to let students request safe rides around campus through automated form
- Created "gadget" with **AngularJS** & **Facebook API** for displaying public Facebook feeds in a corporate intranet
- Contributed bugfixes and improved documentation to open-source Ferris Framework for **Google App Engine**

USC Information Sciences Institute, Geospatial Data Integration **March 2014 – May 2014**

- Built custom **Node.JS** application for fast joining of geospatial and non-geospatial datasets for fast visualization.
- Authored paper on app's thread caching and parallelization; to be published in ACM SIGSPATIAL GIS, Nov '14

Jet Propulsion Laboratory (JPL), ISS-RapidScat Systems Engineering Intern **Jun – Aug 2013**

- Drafted engineering exceptions, safety non-compliance reports, and prepared weekly meetings and project reviews involving several NASA centers (KSC, JSC, MSFC) and Internat'l partners for a mission launching Aug 2014
- Built several applications to autonomously collect data used for project-wide decision making, including:
 - **JavaScript** program to collect and analyze attitude data from the International Space Station
 - **Python** script to convert mission payload telemetry data for use by internal testing of hardware equipment
- 3D-printed space hardware models; Examined applications of new technologies in the engineering process

The Hathersage Group, Inc., Software Developer **May – July 2012**

- Added features and fixed bugs in a **Rails** web application actively used by a Fortune 100 financial services company; diagnosed many problems and inconsistencies within the program and **PostgreSQL** database
- Developed a tool to save company 2 hours / week speeding up test-driven development with ticket tracking

USC Information Sciences Institute Computational Behaviors Group, Intern **Feb – May 2012**

- Built from ground-up a **Java** back-end for behavioral game to study how humans would solve the task of keeping a distributed wireless network connected while hackers try to take it down.

Projects and Leadership Activities

SC Outfitters, Technology Director and Web Developer **Apr 2012 – Present**

- Built features and maintained **LAMP** website and tech infrastructure that has increased revenue 2X for an outdoor experience provider w/ 200 paid annual subscribers and 40 staff leading high adventure trips. scoutfitters.org

USC Association of Computing Machinery, Corporate Affairs **Dec 2011 – Present**

- Planned and raised funds in excess of \$5000 for several hackathons, including HackSC, to create apps benefitting students, Project Possibility SS12, to assist disabled persons live a digital lifestyle, and LA CleanWeb Hackathon, to promote effective environmental resource usage through leveraging APIs
- Have led several workshops in Ruby on Rails apps, bootstrapping startup ideas, and taming source control

Object-Oriented Programming, Factory Project **Sep 2012 – Dec 2012**

- Designed and coded software GUI and graphics for **Java** factory simulation software with 12 people to replicate asynchronous flow of parts in a factory, including non-normative (faulty parts and equipment) scenarios

Competitions

ACM Intercollegiate Programming Contest, University of Southern California **April 2014**

Won **4th place** out of 50 undergraduates in an individual programming contest solving difficult algorithmic problems

SS12 Hackathon, Project Possibility **Feb 2014**

Won **2nd place** for SwordMaster, a 3D gesture-based **Android** game fully accessible to those with vision impairment

Enactus' Bright Innovation Challenge, Queen Mary, University of London **Feb 2013**

Won **1st place** for app idea that organizes and gamifies community service through location-based challenges

Los Angeles Cleanweb Hackathon **Nov 2012**

Won **2nd place** for CarPoodle, a "dead-simple" Rails app to automate carpool organizing. carpoodle.com

ACM International Colligate Programming Competition, So. Cal. Contest **Nov 2012, 2013**

Placed **top third** out of 76 teams from Southern California universities, on a 3-person freshmen and sophomore team competing against graduate students, solving difficult algorithm problems with limited computing resources

Awards and Honors

Pi Tau Sigma Mechanical Engineering Honor Society, President 2014-15 USC Tau Beta chapter **Apr 2012**

USC Emerging Leaders Program, Strategic Thinker of the Year **Apr 2012**

Eagle Scout, President's Volunteer Service Gold Award **Mar 2010**