EVAN L. HSU

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EDUCATION The University of Michigan College of Engineering, Ann Arbor, MI (B.S.E. Electrical Engineering, 2005)

DEV STACK PHP/Laravel, React (ES6/ES5), Webpack, OAuth, MySQL, PostgreSQL, Ubuntu, Git, Vim (ftw!)
OPS STACK Ansible, Vagrant, Atlassian Bamboo, Nginx/Apache, PM2, Bash, Slack Webhooks

EXPERIENCE

Port One Five (Boise, ID) // Software Engineer   (March 2016 - Present)
A web-development shop offering mobile-first, API-driven product development.
- Designed and implemented new features across the full stack from React components and sagas to their API endpoint, database migrations, and the Ansible script to provision the cloud server.
- Reviewed pull requests from other developers for both frontend and backend features.
- Established "infrastructure as code" practices and built a versioned Ansible library for deploying configuration changes to the staging and production hosting servers.

United States Forest Service // Web Developer, Fire & Aviation Management   (October 2015 - February 2016)
The US Forest Service has responsibility for suppressing wildfires on federal land where property or natural resources are threatened.
- Worked with in-house network hardware team, private software developers, and field-users to create a geospatial reporting site for rescue helicopters (see *'RescueCircle'* in the Projects section).

United States Forest Service (Oregon) // Wildland Firefighter   (May 2006 - October 2015)
- Held direct responsibility for managing a squad of firefighters as a Helicopter Rappel Squad Leader
- Performed as a Type-4 incident commander, making risk-based decisions in time-compressed environments.
- Conducted helicopter mission briefings and flight performance planning
- Qualified as a COR I and non-warranted purchaser

R.M. Young Company (Traverse City, MI)   (May 2005 – August 2005)
RM Young Co. has been designing and manufacturing research-grade meteorological instruments for over 50 years.
- Designed and conducted product performance tests and calibration procedures
- Prepared technical documentation on signal processing techniques used for product testing

PROJECTS

RescueCircle (2016)
A PHP site built on the Laravel 5.1 framework for collecting and displaying rescue helicopter location and response range data on an interactive map. Built for the National Interagency Fire Center (NIFC).
- Uses the ESRI ArcGIS Javascript API to interface with NIFC's ArcGIS feature server

NATRAP.COM (2014 - Present)
A Ruby on Rails site currently used internally by the US Forest Service for maintaining training and qualification records for wildland firefighters.

SISKIYOURAPPELLERS.COM (2008 - Present)
A PHP site for news and recruiting. An administrative console provides access to a collection of tools that are used internally to track inventory, manage budget, maintain experience records, and order crew uniforms.

MBus: The Magic Bus Project (2004 - 2005)
Now a commercially-licensed technology, this project was originally sponsored by the AOSS Engineering department of the University of Michigan to track the location of each of the University shuttle buses. Currently operating at http://mbus.doublemap.com/map
- Authored the "time-of-arrival" script that predicts the amount of time until the next bus arrives at each bus stop.

HARDWARE (Arduino, Photon)
- "Keg-Mo" the kegerator monitoring bot uses a magnetic rotary encoder on the dial of a bathroom scale to monitor the weight of a keg and integrate with Slack webhooks and slash-commands.
- "Laser trip-wire alarm" allows slowly-changing light levels while triggering on rapid changes in light intensity.
- "Auto-leveling submarine" adjusts the horizontal fins of a submarine to maintain a level course.