

# GREGORY SHUFLIN

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## Qualifications and interests

Motivated, professional computer scientist with broad expertise across several disciplines of industry software development:

- Network programming and troubleshooting (OSI model layer 2-4, TCP/IP, IPv6, Ethernet), hardware and software packet processing, embedded Linux hardware bringup, writing clear and maintainable C and C++. Can solder if necessary.
- Full-stack web development for cloud environments, PostgreSQL/SQLite, Nginx, Ruby on Rails, Django (Python), modern Javascript (frontend and Node.js) and Javascript tooling (grunt/webpack/npm). I'm a fan of React.js.
- Linux system administration in production environments, Docker containerization, AWS/terraform experience. `uptime -p` on the Arch Linux box under my desk is up **11 weeks, 1 day, 6 hours, 20 minutes** as of this writing.
- Programming language design, parsing theory, Hindley-Milner type inference, strongly-typed functional programming languages, dependant types, Scala, Haskell, Elm, Rust, a little Idris. Can speak at length about why Rust is exciting.

## Education

**University of California, Berkeley**

*August 2007 - December 2012*

*Bachelor of Arts, Computer Science, Linguistics, Japanese Language*

Selected coursework: AI, Compilers, Operating Systems, Algorithms, Data Structures, Computer Graphics

## Professional Experience

### 3D Robotics

Berkeley, CA

• *Senior Software Engineer*

*June 2017 - present*

- Primarily responsible for feature development and ensuring uptime on a Scala REST API backend powering drone photo photogrammetry and computer vision
- Close collaboration with product management to rapidly implement construction-industry driven feature requests
- Experience with integrating various domain-specific technologies including Tensorflow/OpenCV computer vision stack
- Efficient management and troubleshooting of AWS cloud services, and Docker containerization of extant services to save money on compute power

### Cisco Meraki

San Francisco, CA

*Software Engineer*

*May 2013 - June 2017*

- Primarily responsible for feature development and support of several different models of cloud-managed Ethernet switches and WiFi access points
- Healthy mix of embedded Linux firmware development on networking hardware (C++) and full stack web development (Rails/Javascript/Scala backend) in a multi-server environment
- Designed and built WiFi statistics monitoring widget with d3 + React, looks cool in demos and saved at least one deal

- Regularly troubleshoots networking hardware and software in dogfood and production network environments

Oakland, CA

- **Waypoint Homes**

*May 2011 - August 2011*

*Software Developer (Summer Internship)*

- Built a custom iPad app to improve the efficiency of real estate inspectors in environments with weak network connectivity, including writing documentation
- Rewrote and overhauled Salesforce/Apex-based business logic for real estate pricing calculations
- Adapted HTML5/Javascript-based mapping applications to work effectively in mobile device browsers

## Open-source Projects

See <http://neunenak.github.io> for additional projects

**Untrusted** ([alex.nisnevich.io/untrusted](http://alex.nisnevich.io/untrusted)) An open-source browser-based roguelike game where the player must edit the game's code to progress. One of two primary developers. Early version won 1st place in Spring 2013 Berkeley CSUA Hackathon,

**Hilite (Rust port)** (<https://crates.io/crates/hilite>) Rust port (with a few new features) of Hilite, a simple command-line utility to highlight stderr output, useful for build systems.