

# GREGORY SHUFLIN

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📍 Oakland, California

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📄 <https://github.com/gshuflin> (professional)

📄 <https://gitea.everydayimshuflin.com/greg> (personal)

## Qualifications and interests

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

- Programming language, parsing, and typechecking theory, strongly-typed functional programming languages, Scala, Haskell, Elm, Rust.
- 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, PostgreSQL, 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 cloud environments, Docker containerization, AWS/Terraform experience. I have a running 4U VM server on a shelf in my apartment.

## Education

**University of California, Berkeley**

*August 2007 - December 2012*

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

Relevant Coursework: Artificial Intelligence, Compilers, Operating Systems, Algorithms, Data Structures, Computer Graphics

## Professional Experience

- **Toolchain Labs** San Francisco, CA  
*Software Engineer* *June 2019 - present*
  - Primarily responsible for contributing business-critical features/bugfixes to the Pants (<https://github.com/pantsbuild/pants>) open-source build system.
  - Python metaprogramming and gradual typing, performance-critical Rust, collaborating with company-external contributors in a spirit of good open-source citizenship.
- **3D Robotics** Berkeley, CA  
*Senior Software Engineer* *June 2017 - June 2019*
  - Backend/devops engineer primarily responsible for feature development and cloud provisioning for a Scala web API backend for drone data.
  - Built processes for managing diverse geospatial and photogrammetry data, and computer vision workflows.
  - Relevant buzzwords include: AWS, TensorFlow, OpenCV, Docker, PostgreSQL, Couchbase NoSQL, Terraform, Akka, GDAL, quadrotor drones.
- **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 (Ruby on Rails/PostgreSQL/React stack + a little Scala).
- Designed and built WiFi statistics monitoring widget with d3 + React, looks cool in demos and saved at least one deal.
- Regular troubleshooting and debugging of hardware and software in production network environments.

## • Waypoint Homes

Oakland, CA

*Software Developer (Summer Internship)*

*May 2011 - August 2011*

- 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.

## Personal Open-source 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.