

Robert Pirtle

Full-stack software engineer interested in solving meaningful problems with secure, agile infrastructures in an ethically-positive environment.

SOFTWARE ENGINEERING EXPERIENCE

Performance Logic | Applications Engineer

MARCH 2017 - MAY 2019 | Portland, Oregon
- primarily coding in PLScript, a scripting language we wrote and maintained in C

Deliverables

- Development lead on hospital-auditing data collection and reporting
- Integrated and subsumed a custom tool into a new & configurable solution; ~30% of the value of one of our largest contracts
- Implemented report caching with SQLite, increasing load speed >100x
- Designed and built password reset feature, automatically resolving 25% of client service interactions, ~\$75k/year in opportunity costs

Security

- Reduced liability and risk by integrating OpenSSL and enabling one-way hashing encryption of stored passwords
- Discovered & closed various attack vectors and established process to prevent similar bugs. Notably, a username & email enumeration bug, and another that allowed for arbitrary code execution on our servers

DevOps & Tooling

- Spearheaded initiative to enforce Code Reviews
- Mentored new developers and documented language & API features
- Revived a defunct unit & integration testing framework into a fun-to-use, automated tool
- Wrote unit tests for the most frequently used and modified APIs
- Built an Atom text editor package for PLScript with autocompletion, syntax highlighting, and documentation & testing integration
- Resident Git Wizard, helped transition from RCS version control to git
- Created various efficiency-bolstering and quality-of-life tools for developers and client services: *Chat bot* to roll and test code, *data-aggregation shell scripts* to assess server & app health and update docs, *customizable code-cleanup tools*, and *bash-tab completion*

Language Development

- Made extensions & fixes to proprietary scripting language's C++ code
- Closed severe and long-lived memory leaks in the language core, and a data-destroying race condition in our custom noSQL database.
- Major design input on report caching with SQL integration
- Enhanced cross-platform compatibility with Mac desktops in PLScript's C# bindings

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EDUCATION

B.A., Physics with honors,
Cum Laude & Class
Commencement Speaker

Mathematics Minor
Galactic Astrophysics Thesis

Lewis & Clark College, 2014
Portland, Oregon

BACKEND & SERVER ADMINISTRATION

NodeJS, EMCAScript6 (babel),
Typescript (Webpack 3 & 4,
Express, among others),
Python (Django, data analysis
& plotting), PHP (Wordpress),
serverless frameworks and
static site generators, admin
tasks (bash, cron, ssh/sftp)

FRONTEND MANAGEMENT

React.js, Vue.js, Angular.js,
Flux/Redux, CSS3 (flexbox,
grid), Sass/SCSS, Less,
templating engines (JSX, Pug)

DATABASE INFRASTRUCTURE

MySQL, sqlite3, PostgreSQL,
Oracle, MongoDB, GraphQL,
Redis, other NoSQL solutions

TESTING FRAMEWORKS

Javascript (Mocha, AVA, jest),
Python (pytest), custom
language & API testing, RAML

FUN FACTS

[A Cappella](#)

Fluent in Spanish
I'm an Eagle Scout