JOSH FINNIE

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INTRODUCTION

I am an experienced polyglot software engineer who's specialties lie in building large-scale, complex APIs, interactive websites and engineering-improving internal tooling. I have over 10 years of software development experience ranging from the fast-paced world of startups to working on many different contracts with a small, independent team of developers. My current interests are in learning all I can about Rust and Go while staying current in Python and Javascript.

PROFESSIONAL EXPERIENCE

IndigoAg   May 2022 - Present
Staff Software Engineer

- Developing the next generation Carbon Sequestration application api using Flask.
- Help restructure and update the main Backend-for-Frontend architecture.

PBS   Sept 2019 - May 2022
Senior Software Engineer

- Modernized legacy Django applications by adding a test suite, upgrading packages, and updating deployment infrastructure to enhance readability and security.
- Lead development in new GraphQL endpoint for content distribution taking into account different team needs.
- Developed a deployment infrastructure framework for PBS Engineering to unify how micro-services get deployed to Amazon AWS; written in Go.
- Was a go-to generalist who helps brainstorm and fix cross-team architecture problems along with helping optimizing my team's overall workflow.
- Developed cross-application best practices for code quality and testing infrastructure.
- Was a thought leader for experimental changes through out the engineering team at PBS and share learnings through tech talks and presentations.
- Ran weekly coding practices to better improve PBS Engineering's understanding of complex code issues.

TrackMaven → Skyword (merger)   Mar 2014 - Aug 2019
Senior Software Engineer (Promoted from Software Engineer)

- Lead effort to unify users between the TrackMaven platform and the Skyword platform; creating a unified login micro-service in Django which synced the two platform's authentication.
- Developed the implementation of best practices for continual security upgrades for all repositories using Snyk, Dependabot and Github Security Hub.
- Worked as the lead architect on the migration of our base Django application to Python 3 while also upgrading all application dependencies.
- Worked on the re-architecture of our Kubernetes infrastructure introducing better best-practices in deployment through Terraform.
- Part the senior engineering team in charge of on-call triage of problems and after-hour deployments of our multiple services.
- Provided direct technical support to Software Maven team members and collaborative technical support to other departments within TrackMaven.
- Developed testing protocols and best practices to support a successful transition of the live web application from CoffeeScript to modern JavaScript.
- Established and led a Quality and Infrastructure engineering team that focuses on promoting sound application infrastructure through ensuring high quality code and developing best practices across the engineering department.

Koansys, LLC.   Feb 2012 - Mar 2014
Application Developer

· Developed and deployed the Interactive Satellite Tracker (iSat), an application written in JavaScript that calculates satellite positioning in real-time based off of open-source data for Science@NASA,
· Actively maintained iSat and created application enhancements to meet the needs of Science@NASA.
· Designed and built cloud infrastructure and automated scripts using Ansible to migrate Science@NASA's Content Management System to Amazon Web Services.
· Transitioned Science@NASA's Content Management System from Django to Drupal
· Designed a front-end web application, using the Pyramid Framework and written in Angular.js, which allows the customer to interact with a custom-built Python API

TECHNICAL STRENGTHS

Backend Technology	Python (Django, Flask, FastAPI), Node.js, Rust, Go
Frontend Technology	Javascript (React, Vue, Next.js), HTML5, CSS (Bootstrap/Tailwind)
Databases	PostgreSQL, Redis, MongoDB, MySQL, FinDB
Cloud Technologies	Amazon Web Services, Docker, Terraform, Ansible, Fabric
Concepts	Agile, SCRUM, SEO

HIGHLIGHTED PERSONAL PROJECTS

wasm-frontmatter   https://www.npmjs.com/package/wasm-frontmatter

A clone of grey-matter written in Rust. The rust code generates Wasm code and the result is then released to NPM. My tests have found that Wasm-Frontmatter is three times faster than the javascript equivalent.

PushFile   https://www.npmjs.com/package/pushfile

A project written in Node.js which allows you to push a file to Amazon Web Services S3 and gives you an URL in return. I wrote Pushfile using the latest javascript syntax and takes advantage of Babel to compile into ES5 to work as a command line application.

JoshFinnie.com   https://www.joshfinnie.com

My personal blogging site written using the Astro.Build static site generator. I use Tailwind CSS and host on Netlify for high-availability. I write about learnings of software development and tutorials.

More open-source projects can be found at https://www.github.com/joshfinnie/

TALKS & PRESENTATIONS

· gRPC Walkthrough and Programming Showcase - *PBS Internal Tech Talk*, June 23rd, 2021
· Building Wasm-Frontmatter - *RustDC*, March 16, 2021
· Intro to Rust and Wasm for Javascript Developers - *DC JS*, December 9, 2020
· Docker Multi-stage Builds and other Best Practices - *PBS Internal Tech Talk*, July, 21, 2020
· Docker's Best Practices- *Django District, etc.*, October 02, 2019
· Kubernetes Overview Offsite - *Skyword Internal Talk*, May 10, 2019
· GraphQL Lunch & Learn - *TrackMaven Internal Talk*, September 4, 2018
· Flask, Zappa, and AWS Lambda - *Django District, etc.*, January 24, 2017
· Decoupling our Angular.js App - *AngularJS DC*, October 19, 2016
· Quick and Dirty AWS Lambda in Node.js - *NodeDC*, July 21, 2016
· CoffeeScript and the Road to ES2015 - *JavaScript DC*, June 23, 2016
· Dockerizing your Node App in 5 Minutes - *NodeDC*, March 17, 2016

All talks can be found at https://www.joshfinnie.com/talks/

EDUCATION

Central Connecticut State University
Classes towards a Masters of Science in Geography (GIS Track).
University of Connecticut
Bachelors of Art, Economics. (Certificate in Quantitative Economics & Minor in Mathematics).