

JOSH FINNIE

Experienced Software Engineer

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INTRODUCTION

With over 10 years of experience in software engineering, I specialize in building scalable APIs, interactive websites, and optimizing internal team processes. My career demonstrates a commitment to technical excellence, innovative problem-solving, and leadership in developing robust software solutions. I combine deep technical expertise with a passion for mentoring and process improvement, driving both project success and team growth.

PROFESSIONAL EXPERIENCE

Senior Software Engineer People Data Labs 05/2023 - Present

Lead back-end engineer on the Delivery and API team, enhancing customer interactions with our data via API. Collaborate with engineering, data science, product, and other technical teams to build compliant, innovative, people-data-based software solutions.

Technologies: Python, Pulumi, Docker, Rust, Go, AWS (RDS, ElastiCache, Lambda, Batch)

Highlights:

- **Bug Resolution:** Reduce customer complaints by 20% within the first year by addressing issues raised by Customer Success and Product teams promptly.
- **API Development:** Implement best practices significantly improved the existing Flask codebase, and deprecated an outdated Django codebase.
- **Project Leadership:** Act as captain for monthly data update launches, coordinating efforts between the API team and the Data team to ensure seamless updates.
- **SDK Development:** Helped develop and maintain the People Data Labs' SDKs. Wrote the Rust SDK in its entirety.

Staff Software Engineer IndigoAg 05/2022 - 03/2023

Contributed to Carbon by Indigo, a platform enabling farmers to earn income through sustainable practices leading to high-quality, registry-issued carbon credits. Collaborated with external partners to integrate their data into our carbon sequestration models.

Technologies: Python, AWS RDS, Javascript, Docker

Highlights:

- **API Development:** Developed the next-generation Carbon Sequestration application API using Flask, working closely with stakeholders and the product team to deliver a robust solution.
- **Project Leadership:** Led the process from initial architecture to final development, resulting in increased adoption of the carbon sequestration application.
- **Mentorship:** Mentored junior developers and established best practices across the engineering department, fostering a culture of continuous improvement.
- **Technical Documentation:** Authored comprehensive technical documentation to streamline company-wide data backfill procedures, enhancing overall operational efficiency.

Senior Software Engineer PBS 09/2019 - 05/2022

Led development on PBS.org's backend, focusing on critical projects like device authentication and enhanced website search functionality, ensuring seamless user experiences.

Technologies: Python, Javascript, Go, CSS, PostgreSQL, Docker, GraphQL, AWS (ECS, ECR)

Highlights:

- **Legacy Modernization:** Modernized legacy Django applications by adding a comprehensive test suite, upgrading packages, and updating deployment infrastructure, significantly enhancing readability and security.
- **GraphQL Architecture:** Led the development of a new GraphQL endpoint for content distribution, addressing the diverse needs of various teams and improving content delivery efficiency.

- **Infrastructure Improvement:** Created a unified infrastructure framework for PBS Engineering, standardizing service deployment to AWS and streamlining operational processes.
- **Code Quality Standards:** Developed cross-application best practices for code quality and testing infrastructure, ensuring high standards across all projects.

Senior Software Engineer Skyword (Acquired TrackMaven)

10/2018 - 08/2019

Led the integration effort to unify users between the TrackMaven and Skyword platforms, implementing best practices for security upgrades to ensure a seamless and secure user experience.

Technologies: Python, PostgreSQL, Redis, Docker, Kubernetes, Kotlin, AWS (full suite)

Highlights:

- **User Integration:** Led the effort to unify users between the TrackMaven and Skyword platforms by developing a unified login micro-service in Django, synchronizing authentication across both platforms.
- **Security Enhancements:** Designed and implemented best practices for continuous security upgrades using Snyk, Dependabot, and GitHub Security Hub, ensuring the repositories remained secure and up-to-date.
- **Cross-Platform Data Exchange:** Developed a robust data exchange system between TrackMaven's Django infrastructure and Skyword's Java infrastructure, facilitating seamless data flow between the two systems.

Software Engineer → Senior Software Engineer TrackMaven

03/2014 - 10/2018

Joined as the fourth engineer in a leading social media management company working with Fortune 500 companies to enhance their social media presence. Played a versatile role in both frontend and backend development.

Technologies: Python, Javascript, PostgreSQL, Redis, Docker, Kubernetes, Terraform, AWS (full suite)

Highlights:

- **Python 3 Migration:** Led the architecture and execution of migrating the core Django application, upgrading all application dependencies to ensure compatibility and performance improvements.
- **Kubernetes Infrastructure:** Co-led planning and architecture, introducing deployment best practices through Terraform, enhancing deployment efficiency and reliability.
- **On-Call Leadership:** Served on the senior engineering team responsible for on-call triage and after-hours deployments, ensuring the stability and availability of multiple services.
- **JavaScript Transition:** Developed testing protocols and best practices to support the successful transition of the live web application from CoffeeScript to modern JavaScript, improving code maintainability and performance.
- **Quality and Infrastructure Team:** Established and led the team, focusing on promoting robust application infrastructure, high-quality code, and best practices across the engineering department.

Application Developer Koansys, LLC

02/2012 - 03/2014

As the first hire at an engineering consulting firm, contributed to multiple contracts, ranging from migrating software to current best practices to developing an Interactive Satellite Tracker (iSat) for Science@NASA.

Technologies: Python, Javascript, Drupal, AWS (EC2, S3, Route53, Cloudfront, API Gateway)

Highlights:

- **iSat Development:** Developed and deployed the Interactive Satellite Tracker (iSat), a JavaScript application that calculates real-time satellite positioning using open-source data for Science@NASA.
- **Cloud Migration:** Designed and built cloud infrastructure and automated migration scripts using Ansible, transitioning Science@NASA's Content Management System from Django to Drupal and moving it to Amazon Web Services.

EDUCATION

University of Maryland Global Campus

M.S. in Data Analytics (Expected 2026)

Central Connecticut State University

Classes towards a M.S. in Geography (GIS Track)

University of Connecticut

B.A. in Economics. (Certificate in Quantitative Economics & Minor in Mathematics)