

# Josh Finnie

Experienced Software Engineer

✉ [josh@jfin.us](mailto:josh@jfin.us)  
🌐 [www.joshfinnie.com](http://www.joshfinnie.com)  
🌐 [/joshfinnie](https://www.linkedin.com/company/joshfinnie)  
🌐 [/joshfinnie](https://www.github.com/joshfinnie)  
☎ (860) 716-5996  
🏠 Charlotte, NC

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.

## TECHNICAL SKILLS

Programming	Python (Django, Flask, FastAPI), Typescript (Astro.js, React, Next.js, Express), Rust, Go, GraphQL, CSS (Tailwind, ShadCN, Sass)
Databases	PostgreSQL, Redis, MongoDB, MySQL
Cloud	Amazon Web Services, Docker, Pulumi, Kubernetes, Terraform
Tools	Atlassian Suite(Jira, Confluence, Bitbucket), Git, Asana
Concepts	Agile, SCRUM, SEO

## WORK EXPERIENCE

### Senior Software Engineer

May 2023 - Present

*People Data Labs | Remote*

Lead back-end engineer focused on building scalable APIs and cloud-based solutions that enhance customer interactions with data.

- **API Development:** Leading the development of RESTful APIs, reducing data access issues by 25%.
- **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:** Authored the Rust SDK, contributing to SDKs across multiple languages to improve developer experience.

### Staff Software Engineer

May 2023 - Mar 2023

*IndigoAg | Remote*

Contributed to Carbon by Indigo, a platform enabling farmers to generate revenue through sustainable farming practices and verified carbon credits. Collaborated with external partners to integrate their data into carbon sequestration models.

- **API Development:** Created and developed the next-gen Carbon Sequestration API using Flask, delivering a scalable and high-performing solution that met stakeholder requirements.
- **Project Leadership:** Spearheaded the project lifecycle, from initial architecture design to deployment, increasing user adoption of the carbon sequestration platform by 50%.
- **Mentorship and Team Development:** Mentored junior engineers, established engineering best practices, and fostered a collaborative environment focused on continuous improvement.
- **Technical Documentation and Process Improvement:** Authored detailed technical documentation to support company-wide data backfill processes, improving operational efficiency by 20%.

### Senior Software Engineer

Spet 2019 - May 2022

*PBS | Crystal City, VA*

Led modernization of backend services for PBS.org, focusing on improving cloud infrastructure and enhancing website functionality.

- **Legacy Modernization:** Spearheaded modernization efforts, migrating from legacy Django to cloud-native infrastructure, improving scalability and reducing downtime.
- **GraphQL Architecture:** Designed and implemented GraphQL infrastructure leveraging Apollo Client to improve content distribution efficiency across multiple teams.
- **Security Enhancements:** Enhanced code quality and security across projects by implementing automated testing pipelines and security audits.

### Senior Software Engineer

Mar 2024 - Aug 2019

*TrackMaven → Skyword | Washington, DC*

Joined TrackMaven as the fourth engineer, contributing to both backend and frontend development for a leading social media management company. Post-acquisition, played a pivotal role in integrating TrackMaven's platform with Skyword.

- **User Integration & Authentication:** Managed the development of a unified login microservice in Django, synchronizing authentication for 1000+ users between TrackMaven and Skyword platforms, improving security and user experience.
- **Programming Language Updates:** Guided the migration of TrackMaven's core app to Python 3 for improved performance and sustainability. Established testing protocols to transition the web app from CoffeeScript to modern JavaScript, enhancing maintainability and performance.
- **Leadership & On-Call Support:** Directed the Quality and Infrastructure team, promoting robust engineering practices, and served on-call to ensure the stability of mission-critical services.
- **Security & Infrastructure Enhancements:** Implemented security best practices using tools like Snyk, Dependabot, and GitHub Security Hub, and co-led the architecture for Kubernetes infrastructure using Terraform, streamlining deployments.

### Application Developer

Feb 2012 - Mar 2014

*KoanSys, LLC | Arlington, VA*

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

- **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:** Architected 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.

## HIGHLIGHTED PERSONAL PROJECTS

### HireTrax

<https://hiretrax.app>

Building a job application tracking tool for people in the software development space. Using Next.js and Supabase, I was accepted into the Buildspace Nights & Weekends program and built a working prototype in 6 weeks.

### WASM Frontmatter

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

A clone of the NPM package grey-matter written in Rust. The project is used to generate Wasm code and is released on NPM. My tests have found that Wasm-Frontmatter is 3x faster than the javascript equivalent.

## EDUCATION

### University of Maryland - Global Campus

Master of Science: Data Analytics (Expected 2026)

### Central Connecticut State University

Classes towards a Master of Science: Geography (GIS Track)

### University of Connecticut - Storrs

Bachelor of Arts: Economics. (Certificate in Quantitative Economics & Minor in Mathematics)