

THOMAS SMITH

Missoula, Montana
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PROFILE

Senior Software Engineer with 6+ years of experience architecting mission-critical, full-stack systems and high-availability cloud infrastructure. Expert in bridging hardware-integrated software with scalable web platforms. Proven track record in automating CI/CD pipelines, optimizing low-latency data processing, and delivering scalable solutions for high-stakes industries, including government infrastructure and scientific research. Highly proficient in Ruby on Rails, React, C/C++, AWS, and Terraform.

EXPERIENCE

Skyfish AI

April 2025 - Present

Software Engineer

Remote

- Developed and maintained core deployment scripts currently used by Homeland Security and the Architect of the Capitol to automate the transfer and indexing of hundreds of large-scale (20MB+) aerial images.
- Orchestrated a Bitbucket CI/CD system that achieved 100% automation across the entire build, lint, test, and deployment lifecycle of core drone software, eliminating manual intervention and guaranteeing that only fully validated, production-ready code reached the main repository.
- Optimized low-latency GStreamer pipelines for Sony onboard camera payloads, achieving a 5% reduction in visual artifacts (pixelation/tearing) under high-interference conditions. This enhanced the reliability of real-time feeds, ensuring mission-critical visual fidelity for remote infrastructure inspections.

Utilized: C/C++, Docker, Bitbucket, Linux

Prime Labs, Inc.

June 2022 - April 2025

Software Engineer (June 2023 - April 2025)

Remote

- Architected a high-availability cloud architecture using Terraform IaC and GitLab CI/CD to establish a fully automated Continuous Deployment (CD) pipeline, accelerating deployment cycle times by 75% while maintaining 99.99% uptime via automatic scaling.
- Engineered a high-scalability text search engine to index and query over millions of data records across scientific reports, utilizing a custom inverted index stored on Amazon S3 to bypass database overhead while supporting set-theory Boolean logic (negations, exact phrases), NLP-driven lemmatization, and multi-field filtering.
- Conducted thorough code reviews for 5 team members, identifying critical edge-case vulnerabilities and enforcing strict architectural standards for RESTful API security and data validation.

Junior Software Engineer (June 2022 - June 2023)

Missoula, Montana

- Built a custom WYSIWYG rich text editor using Ruby on Rails and React, enabling scientists to produce publication-ready reports directly within the platform; reduced end-to-end mass spectrometry data documentation time by 25% while eliminating external platform dependencies and enhancing security.
- Engineered a data-driven image management system and automated figure-numbering engine, ensuring seamless state synchronization between raw scientific source data and final report visuals.
- Engineered a multi-layered visualization tool for mass spectrometry data, implementing custom annotation, dynamic color mapping, and interactive filtering to synchronize and analyze stacked data layers.

Utilized: Ruby on Rails, React, AWS, Terraform, GitLab CI/CD, PostgreSQL, JavaScript

Where is Good

March 2019 - June 2022

Junior Software Engineer (September 2020 - June 2022)

Missoula, Montana

- Built and deployed a high-performance billing infrastructure with Stripe, supporting complex subscription logic across monthly and annual tiers to facilitate platform monetization.
- Developed and maintained the RESTful API backend, optimizing query performance through database indexing and efficient ActiveRecord modeling, which decreased average page load times by 200ms across the platform.
- Integrated observability tools using Grafana Cloud to establish real-time system monitoring, enabling proactive identification and resolution of performance bottlenecks.

Software Engineer Intern (May 2020 - September 2020)

Missoula, Montana

- Developed and implemented an authentication module using Ruby on Rails and React, encompassing account confirmation, security protocols, and third-party OAuth integrations (Google, Spotify, and Apple Music) to streamline user onboarding.
- Developed and integrated a GIS data pipeline using Ruby on Rails and React to convert raw ZIP code data into dynamic heat maps, streamlining location-based strategic planning.
- Engineered a scalable email notification system leveraging AWS SES, Ruby on Rails, and Redis to automate communication workflows and improve user engagement.

Utilized: Ruby on Rails, React, AWS, Redis, Grafana Cloud, Stripe, PostgreSQL, JavaScript

TECHNOLOGY

Languages: Ruby, Python, Typescript/Javascript, C/C++, Java, Bash, SQL

Frameworks & Libraries:

Web/Backend: Ruby on Rails, Node.js, Django, FastAPI, Spring Boot, Angular, React

Data & Systems: Pandas, Scikit-learn, XGBoost, GStreamer, Redis

Cloud & Infrastructure: AWS (EC2, S3, Fargate, EFS, CloudFront, Route53), Cloudflare, Terraform, Docker, Grafana Cloud, Stripe

Databases & DevOps: PostgreSQL, MySQL, GitLab CI/CD, Bitbucket Pipelines, Git, Linux

Domain Expertise: Distributed Systems, Embedded Systems, Computer Architecture, Relational Database Design, Information Retrieval, Inverted Index Design, RESTful APIs

Collaboration: Jira, Confluence

EDUCATION

Western Governors University

BS, Computer Science

INTERESTS

Troubleshooting HVAC systems, performing financial bookkeeping, playing piano and bass, managing small-scale farming operations, and wilderness camping.