Brandin Canfield

Senior Software Engineer

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SUMMARY

Senior full-stack engineer with 8+ years taking web applications from concept to production. Much of this work combines large datasets, often geospatial, with human-machine teaming. Recent focus is agentic AI. Open-source projects (github.com/bcanfield) have 100,000+ combined downloads and Docker pulls.

WORK EXPERIENCE

SENIOR SOFTWARE ENGINEER | Mile Two — Jul 2020 – Present

Promoted from Software Engineer, May 2022

- Led a 3-person team building a production agentic system that lets 10+ analysts query large geospatial datasets in plain language (text-to-SQL agent, MCP server, agent skills, web app; LangGraph, Kubernetes, GeoServer), with evals and SQL safeguards.
- Led development of the human-performance research platform with a 3-person team (Next.js, Prisma, Google Cloud), re-architected from one customer's app into a shared core running studies for 7 customers, from map-algorithm timing to eye tracking and bias training.
- Rebuilt the platform's event service in Go (Echo, Gorm); it ingests thousands of events per second.
- Frontend tech lead for 5 developers, working with designers and cognitive systems engineers, on a battle-management decision-support system (Next.js, C#, PostgreSQL), the central app for human-machine teaming experiments.
- Built a customizable map view with shareable exports and a map-based data catalog with versioning and change detection for large datasets (React, Vue, deck.gl, Leaflet, GraphQL, Python).
- Built the company's AI Slack assistant (Bolt SDK, Vercel AI SDK, TypeScript) that answers questions by retrieving from the wiki's Markdown files and finds past messages.
- Mentored two junior engineers, both later promoted, one to tech lead.

SOFTWARE ENGINEER | Ball Aerospace — May 2018 – Jul 2020

Promoted from Associate Software Engineer, Mar 2020

- Worked on an internal R&D project that streamed large geospatial files to the browser over WebRTC and tracked faint moving objects (Python, JavaScript).
- Built Go, Node.js, Java and Python services while helping split a monolithic satellite-data system into microservices handling petabytes of data.
- Contributed to real-time processing and alerting services (PostgreSQL, Docker) and the Angular UI over Go/Python microservices.
- Helped sustain a 24/7 production microservice cluster and Elasticsearch clusters with scripts and health tooling.

EDUCATION

BS, Computer Science | Wright State University — 2014 – 2018

CERTIFICATIONS

CompTIA Security+ Nov 2019 – Present

SKILLS

AI & LLM apps: agentic systems, LLM tool calling, text-to-SQL, MCP servers, structured output, streaming responses, Vercel AI SDK, OpenAI and Anthropic APIs, LangGraph, Claude Code (skills, hooks, subagents, plugins)
Languages: TypeScript, JavaScript, Go, Python, SQL
Frontend: React, Next.js, Tailwind CSS, Vue, Angular; Practices: automated testing (TDD, Jest), Agile/Scrum
Backend & APIs: Node.js, Echo, Gorm, REST, GraphQL, Prisma, microservices
Data & geospatial: PostgreSQL, PostGIS, Elasticsearch, GeoServer, GeoJSON, deck.gl, Leaflet
Cloud & DevOps: Docker/Podman, Kubernetes, AWS, Google Cloud, Cloudflare Workers, CI/CD, Linux, Git