

Catherine Luse

Software Engineer | (623) 853-7028 | catherine.luse@gmail.com | Tempe, AZ | catherineluse.com

SUMMARY

Full-stack software engineer who builds reliable web applications end to end: TypeScript frontends in Vue and React, Node.js and serverless backends, and the cloud infrastructure underneath, across startup, enterprise, open-source, and medical software environments. Strong focus on maintainable code, automated testing (Vitest, Playwright, Cypress), and backend integration, with recent production work in Vue 3, Pinia, AWS Lambda, and Node.js services. Pragmatic and quality-focused; comfortable using AI-assisted development tools to improve productivity while preserving engineering standards.

EXPERIENCE

Software Engineer | HeartFlow (Remote)

Feb 2025 – Present

- Build critical features for cardiovascular imaging software used in surgical planning, spanning Vue 3 frontend development and Node.js backend integration.
- Develop TypeScript components using the Composition API, Pinia, and modular composables, with Vitest unit tests and Playwright end-to-end coverage.
- Contribute to production Node.js/AWS Lambda services, including an Express-based web server handling authentication, secure clinical-data proxying, and protected asset delivery.
- Updated Express server running in AWS Lambda to help expose plaque disease-stage data to the frontend.

Tech stack: Vue 3, TypeScript, Pinia, Vitest, Playwright, Node.js, Express, AWS Lambda, AWS CDK, S3, CloudFront, Datadog.

Software Engineer | Flightcrew (Remote)

Jan 2023 – Oct 2024

- Built core features for an early-stage DevOps automation platform helping teams evaluate and apply Kubernetes configuration recommendations.
- Implemented a GitOps diff view showing users exactly what infrastructure configuration changes would be made before applying them, building trust in automated DevOps workflows.
- Built user onboarding flows, permission-management features, and data visualizations showing recommendation impact.
- Collaborated closely with founders and backend engineers, proposing GraphQL schema changes and implementing frontend work in parallel with backend API development.

Tech stack: TypeScript, JavaScript, React, Next.js, GraphQL, Victory Charts/D3, Kubernetes, GitOps.

Technical Writer → Software Engineer | Rancher Labs / SUSE (Remote)

Jun 2019 – Jan 2023

- Hired to document Kubernetes tooling for Rancher, an open-source Kubernetes management platform used by over 30,000 teams globally; transitioned to engineering (Sep 2021) after contributing production code to the Rancher UI.
- Built frontend features for complex enterprise Kubernetes workflows, including multi-tenancy scenarios and selective monitoring deployment across namespace subsets.
- Worked in a large Vue/TypeScript codebase, collaborating across engineering teams to support cluster management, observability, and configuration workflows.

Tech stack: JavaScript, TypeScript, Vue, Kubernetes, Docker.

SIDE PROJECTS

- **Multiforum (2019–present).** Personal full-stack project designing and developing a community platform combining forums, wikis, event calendars, and file sharing. Built with TypeScript, Vue 3/Nuxt 3, Neo4j, Apollo GraphQL, and Node.js. Includes Node.js-based backend tests and Playwright end-to-end tests. Code: github.com/gennitdev/multiforum-nuxt · Hosted demo: topical.space
- **Multiforum Plugin Security Scan Service (2026).** Python/FastAPI file-security microservice (VirusTotal + static ZIP analysis) for the Multiforum platform; Dockerized for Cloud Run with GitHub Actions CI/CD, Terraform, and pytest. Code: github.com/gennit-project/multiforum-plugin-security-scan-service
- **AI Beta Reader (2025–present).** Full-stack tool giving novelists AI developmental feedback on long manuscripts: chapter summaries are generated or written manually, then automatically included as context when reviewing later chapters — solving the token-limit problem for long-form fiction. Supports customizable reviewer personas and manuscript-wide search/replace. Built with Vue.js, Express, and PostgreSQL. Code: github.com/gennitdev/ai-beta-reader-frontend

SKILLS

- Frontend: Vue 3, React, TypeScript, JavaScript, HTML, CSS, Pinia, Vitest, Playwright, Cypress, GraphQL, REST APIs.
- Backend: Node.js, TypeScript, Express, GraphQL, Python. Familiar with Go, microservices, REST APIs, PostgreSQL, SQL.
- Cloud & Infrastructure: Docker, Kubernetes, AWS, AWS Lambda, AWS CDK, Google Cloud Platform, Terraform, CI/CD.
- AI-Assisted Development: Copilot CLI, Claude, ChatGPT.

EDUCATION

M.S., Portland State University

B.A., Northern Arizona University

Certificate, Full-Stack Web Development — Galvanize 2018