

Steven Hagene

Senior Full-Stack AI Product Engineer

Clayton, NC | (252) 876-1100 | steven.hagene@gmail.com | stevenhagene.com | semperdigitalsolutions.com

SUMMARY

Senior Full-Stack AI Product Engineer with 10+ years of software engineering experience building production web platforms, polished product UX, and LLM-powered applications, including four AI products shipped from concept to production with paying customers. Deep hands-on experience architecting multi-agent systems, adversarial AI review practices, RAG and evaluation harnesses, and full-stack products using React, TypeScript, Next.js, Node.js, Python, PostgreSQL, Supabase, LangGraph, LangChain, CrewAI, OpenAI, and Anthropic. Known for taking early-stage product ideas from prototype to production-ready architecture across legal tech, clinical software, fintech, and federal environments. Founder of an SBA-certified Service-Disabled Veteran-Owned Small Business. Former Marine Sergeant with prior TS/SCI clearance.

TECHNICAL SKILLS

AI and Agent Systems: Claude Code, Claude Agent SDK, Anthropic SDK, Claude API, OpenAI Codex SDK, OpenAI API, OpenRouter, LangGraph, LangChain, CrewAI, RAG, ground-truth evaluation harnesses, tool and function calling, structured outputs, multi-model adversarial review, multi-agent orchestration, in-browser ML (Transformers.js)

Full-Stack Product: React 18/19, Next.js (App Router), Astro, TypeScript (strict), Node.js, Bun, ElysiaJS, FastAPI, Python, PostgreSQL, Drizzle, SQL Server, Oracle PL/SQL, Supabase, Firebase, MongoDB, Qdrant, tRPC, Zod, REST APIs, LiveKit, pg-boss workers

Frontend and UX: Mantine, Radix, Flutter, Tailwind CSS, Material UI, Zustand, TanStack Query, Figma, Storybook, design tokens, Style Dictionary, OKLCH theming, accessibility, WCAG 2.1 AA, Section 508

Cloud, Testing, and Delivery: AWS, GCP, Cloud Run, Azure, Vercel, Netlify, Docker (on-prem appliance deploys), Stripe, Payabli, QuickBooks Online, Playwright, Vitest, axe-core, mutation testing, Git, GitHub Actions, Azure DevOps, CI/CD, Sentry, PostHog

PROFESSIONAL EXPERIENCE

Semper Digital Solutions

Founder and Principal Software Engineer | 2024 - Present

- Senior consulting practice delivering frontend, full-stack, and AI product engineering for startups and small businesses; operated as an SBA-certified Service-Disabled Veteran-Owned Small Business (SDVOSB) and registered federal contractor.

CrimCaseAI portfolio, legal intelligence products | Principal Engineer (client engagement)

- Delivered a portfolio of AI legal-intelligence products from concept to production: a live case-management SaaS, a ground-up second-generation rebuild (schema-generated forms, in-browser ML so privileged legal data never leaves the client), and an evidence-intelligence platform serving paying law firms.
- Built the evidence-intelligence investigation workflow end to end: Python backend and React UI with case dashboards, video timelines, transcripts, human review queues, audit logging, and a ground-truth evaluation harness that measures model accuracy and gates AI output before analysts see it.
- Shipped Aegis as an on-premises Docker appliance for restricted environments: multimodal evidence ingestion (video, audio, documents, phone exports), local OCR and transcription, vector search, entity graphs and timelines, and cited, citation-gated AI case chat with role-based access and audit logging.
- Designed the multi-agent architecture spanning intake automation, case context gathering, document drafting, jurisdiction-aware research, and human-in-the-loop review; built a DoD SBIR proposal automation pipeline using Python and CrewAI.

TEO, property-management financial SaaS | Lead Full-Stack Engineer (client engagement)

- Lead the development team and partner directly with the CEO on requirements and product direction for a production financial SaaS.
- Own the payments and accounts-receivable domain end to end: QuickBooks invoicing through settled payment via Payabli hosted checkout, webhook ingestion, and background worker pipelines, with invoice status designed as a derived projection of the ledger of record.
- Hardened the money path against concurrency and environment risks: default-deny, fail-closed safeguards on ledger writes, with environment provenance surfaced in the UI.
- Instituted an adversarial multi-model AI review gate for money and security-path changes that has caught real defects before merge, and founded the token-based, ESLint-enforced design system governing the frontend.

Musterhall, creator learning platform | Principal Engineer and sole developer (client engagement)

- Sole engineer for the entire platform: Next.js + TypeScript web application, Flutter mobile apps, and a Supabase/Postgres backend with schema-enforced invariants (payment-path idempotency, append-only event outbox, entitlement-gated row-level security).
- Built the cross-platform token pipeline from one source of truth (web CSS custom properties plus a generated Flutter package), a shared component library with public Storybook, a LiveKit real-time room engine with host moderation, and a feature-flag rollout ladder with fail-safe semantics.
- Enforced a verification-first engineering discipline: comprehensive automated testing with CI-parity gates, and adversarial security review that found and fixed real vulnerability classes (client-trusted input forgery, cross-tenant data exposure) before release.

Additional Semper work

- Operate a 24/7 autonomous multi-agent business operations system (Node.js, Claude API) handling lead generation, email triage and drafting, scheduled research, content creation, and website updates end to end.
- Built a Python site-audit engine auditing small-business and municipal sites for security compromises, accessibility failures, and SEO defects, feeding an automated outreach pipeline; shipped 10+ Astro sites with token systems and Lighthouse 95+ scores.

Endpoint Clinical

Senior Software Developer | Oct 2024 - Jan 2026

- Developed production frontend features for clinical trial management software used by pharmaceutical organizations worldwide, focused on authentication, workflow tooling, reporting, reliability, and user experience.
- Architected and built the complete single sign-on frontend, including component foundation, settings management, login and error flows, and user profile integration.
- Designed and implemented an AI-powered bug resolution workflow using GitHub Copilot agent tooling and Azure DevOps to investigate bugs, analyze related PRs, identify root causes, apply fixes, and create pull requests.
- Implemented end-to-end testing with Playwright, built features spanning validation, dispensation management, and reporting, and mentored an intern on frontend best practices and code review standards.

Tech: React, Next.js, TypeScript, Material UI, Playwright, GitHub Copilot, Azure DevOps

Computershare

Senior Software Developer / UX Engineer | Jun 2021 - Jul 2024

- Led development and architecture of the company-wide Global Design System, establishing a shared component library and reusable React components consumed by product teams across the organization.
- Pioneered an automated design-to-code workflow using Figma, Token Studio, Node.js, and Style Dictionary that turned design tokens into a governed source of truth for production components.
- Bridged design and engineering by validating UX feasibility, translating design requirements into scalable frontend patterns, and serving as primary liaison between design and development teams; temporarily served as team lead, managing sprint planning and mentoring developers.

Tech: React, Angular, Flutter, TypeScript, Tailwind CSS, Material Design, Figma, UXPin, Token Studio, Style Dictionary

EARLIER EXPERIENCE

Beroe Inc.

Software Developer | Jul 2018 - Jun 2021

- Built enterprise procurement web applications with Angular, Bootstrap, Material Design, and Java microservices; resolved performance bottlenecks and built automation tools saving the analyst team 100+ hours annually; led Angular training for enterprise clients.

Judge Consulting Group

Software Developer | Mar 2017 - Jul 2018

- Developed and modernized business applications using .NET, ASP.NET, C#, VB.NET, SQL Server, LINQ, and Entity Framework in Agile/Scrum environments.

Naval Air Systems Command

IT Specialist / Web Developer | Mar 2015 - Mar 2017

- Developed .NET web applications backed by SQL Server T-SQL and Oracle PL/SQL; led requirements gathering, technical analysis, and stakeholder coordination for federal program teams.

EDUCATION AND MILITARY SERVICE

Bachelor of Science, Computer Science

Grantham University

United States Marine Corps

Sergeant / Communications Specialist | 2006 - 2011

- Combat veteran and technical leader delivering secure communications in mission-critical environments; supported MARSOC communications systems and was the first Marine to deploy the G-SWAN satellite communication system in Iraq.
- Previously held TS/SCI security clearance; supported network security through vulnerability management, IAVA patching, and Nessus.