Matthew Gennings

AI Product Engineer · Lead Software Engineer · LLM Features in Production, AWS to App Store

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Summary

AI product engineer and lead software engineer who ships LLM features to production, from the AWS backend to the App Store. Since April 2026 I have worked as a fractional AI CTO for founders and small businesses: moving products off no-code platforms onto infrastructure they own, putting Claude into production behind serverless AWS edges, and shipping native Apple apps end to end. Before that I spent three years as lead software engineer on YuTraffic Studio at Yunex Traffic, the React, TypeScript, and GraphQL platform agencies across North America use to run their traffic signals, with final say on every new frontend and client-facing decision and hands-on work in the C# GraphQL API behind it. Earlier I built campaign booking UI on Apple Search Ads Advanced and helped build Truist's retail banking platform from scratch. Everything I ship is private by construction and accessible at WCAG AA or better, measured rather than eyeballed.

Skills

AI in Production: Anthropic Claude behind serverless AWS edges, streamed responses, grounding to approved sources, schema-validated outputs, cost and latency tuning, on-device Apple Foundation Models, agentic development on Claude Code with MCP.

AWS, End to End: Lambda, API Gateway, DynamoDB, Cognito, S3, CloudFront, Amplify, AWS CDK, Secrets Manager, SES, Function URL streaming, OAuth and PKCE, Supabase Postgres with row-level security.

Native Apple: Swift 6, SwiftUI, HealthKit, StoreKit 2, App Clips, watchOS, tvOS, and macOS targets, shared Swift packages, App Store submission and review.

Web & Frontend: React 19, TypeScript, Apollo GraphQL, SvelteKit, Next.js, Vite, Nx monorepos, Redux, MobX, TanStack Query, Core Web Vitals, design systems.

Technical Leadership: Fractional CTO for founders, scrum master for a 12 to 16 person team, system design, CI/CD and quality gates, Playwright, Vitest, and Jest, C# and .NET GraphQL APIs, supply-chain security.

Privacy and Accessibility: WCAG 2.2 AA and AAA (ARIA, screen readers, Dynamic Type, Reduce Motion) and privacy by construction, contract-tested.

Experience

Fractional AI CTO & Lead Engineer (Contract), experience Architects – Austin, TX / Remote *Apr 2026 – Present*

- Fractional CTO and technical lead for founders and Austin small businesses: I own architecture, build, and delivery end to end, scope AI features to what is safe and worth shipping, and leave every client with code and infrastructure they own.
- Rebuilt an AI sales workspace off the Base44 no-code platform onto React, Cognito invite-only auth, Supabase row-level security, and AWS Lambda and S3, with schema-validated Claude responses and end-to-end tests covering every user role in both color schemes.
- Built FobKit, a whitelabel member app for gyms and studios (first tenant Korrect Fitness, Austin), pairing Mindbody booking with a Claude-streamed AI concierge on a serverless AWS edge (Lambda, API Gateway, DynamoDB, CDK) I designed and cost-tuned.
- Put Claude into production with streamed responses and grounding that keeps the model to approved source text, and built an on-device AI coach over Apple Health data behind a contract test that fails the build if health data can reach the network.
- Shipped three native apps to the App Store and an end-to-end encrypted web app as the sole engineer: AirBridge Health, undertext Bible, Holy Instant, and cinder.ink.
- Run an agentic delivery practice on Claude Code (skills, memory, multi-agent orchestration, and independent review of everything it writes) that lets one engineer ship at team speed.

Lead Software Engineer, Yunex Traffic – Austin, TX *May 2023 – Apr 2026*

- Led frontend for YuTraffic Studio, the React, TypeScript, and GraphQL platform agencies across North America use to run their traffic signals, with final say on every new frontend and client-facing decision across the org.
- Moved Studio's GraphQL subscriptions from the deprecated subscriptions-transport-ws to graphql-ws, built real-time traffic signal updates on top of them, and hardened the cross-window messaging that carries live status into the shared app frame with origin validation.
- Designed and built the dense surfaces operators live in: real-time signal status over GraphQL subscriptions, shared and saveable grid views, alarms and notification settings, bulk editing, and CSV and PDF export, each aware of who is looking.
- Built user, agency, and permission management: role-aware create and edit flows, the permission and agency stores the rest of the app reads from, and agency time zone management from the React UI through the C# GraphQL mutation and its permission check.
- Pushed the team to adopt end-to-end testing, built Playwright and Cypress proofs of concept, and became the top author of the Playwright suite the team chose: page objects, a faster pipeline, and stable stateful runs.
- Led Studio's response to the Shai-Hulud 2.0 npm supply-chain worm, rebuilding the dependency tree to zero known vulnerabilities and writing the team's dependency investigation guide.

Senior Software Engineer (Contract), Apple – Search Ads Advanced – Austin, TX *Sep 2021 – Jul 2022*

- Frontend engineer on Neo, the Angular and Nx rewrite of Apple Search Ads Advanced, the App Store's advertising platform: about 250 commits in six months across campaign booking, reporting, and recommendations.
- Built the carousel modal for Apple's shared web-components library from prototype to release, with a preview modal, design-system tokens, and unit tests, and extended the shared modal and accordion for other teams.
- Shipped the educational banner and modal in the booking flow end to end: a new component, copy localized in 12 languages, feature-flag gating, and persisted dismissal, plus the ad preview modal for placements.
- Delivered flexible budget's interface across booking, reporting, recommendations, and bulk edit, and led the rename from daily cap to daily budget across all of them.
- Brought create and edit campaign to design spec and closed design QA regressions, added ad scheduling test coverage, built sorting for the API access table, and fixed permission removal so it saves.
- Helped maintain the shared web-components library other Apple teams build from, merging 880 of its 1,923 commits as committer, and contributed tokens and component styles to the design system.

Senior Frontend Developer, Truist – Charlotte, NC *Feb 2021 – Jun 2021*

- Brought on full time after the contract as UI lead for the core banking team, building the transfer and pay and bill pay experiences on Truist's retail banking web platform in Angular and TypeScript.
- Web accessibility specialist for the team, holding banking flows to WCAG 2.1 AA and owning final UI revisions.
- Iterated interfaces with UX designers from user feedback, and was the liaison across enterprise teams.

Senior User Interface Designer (Contract), Truist – Charlotte, NC *Aug 2020 – Feb 2021*

- One of three engineers on a four-person team that built Truist's retail banking web platform and its design system from scratch, after the BB&T and SunTrust merger created the sixth-largest US bank.
- Turned Adobe XD designs into production Angular for Security Central, Customer Service, Rewards, and Ads.
- The only person on the team working in both design and code, from mockups to production components.
- Set the platform's design-system patterns and accessibility standards, on an 8-point grid at WCAG 2.1 AA.
- Carried Truist's new brand standards into every component during the transition from BB&T and SunTrust.

Education

Appalachian State University – B.S., Entrepreneurship and Business Management, 2016