

Hashim Jacobs

Senior Full Stack Engineer

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PROFESSIONAL SUMMARY

Senior Full Stack Software Engineer with 5+ years of experience designing, building, and scaling enterprise SaaS (Software as a Service) platforms across frontend, backend, cloud infrastructure, and AI (Artificial Intelligence)-augmented engineering workflows. Proven track record leading architecture initiatives, modernizing data platforms, improving application performance, and delivering secure, scalable solutions in cybersecurity and geospatial domains. Deep expertise in React, TypeScript, Python, AWS (Amazon Web Services) serverless, and LLM (Large Language Model)-integrated product design.

CORE COMPETENCIES

React 19 · TypeScript · Python · Full Stack Development · System Design · Aurora PostgreSQL · RDS (Relational Database Service) Data API (Application Programming Interface) · AWS Lambda · API Gateway · S3 (Simple Storage Service) / SQS (Simple Queue Service) · Pulumi (IaC — Infrastructure as Code) · Serverless Framework · Docker · Dev Containers · FastAPI · REST (Representational State Transfer) APIs · OpenAPI / Swagger · Authentication & SSO (Single Sign-On) — Clerk, SAML (Security Assertion Markup Language), Okta · MITRE ATT&CK (Adversarial Tactics, Techniques, and Common Knowledge) · LLMs / GenAI (Generative AI) · Claude Code · Agent Skills & Project Rules · CI/CD (Continuous Integration/Continuous Deployment) · OpenLayers · Geospatial Systems · AI-Augmented Development (MCP — Model Context Protocol / Claude Code) · Tauri / Rust · Real-time Audio (Deepgram)

PROFESSIONAL EXPERIENCE

Armature Systems — Senior Full Stack Engineer & Frontend Lead

Jun 2024 – Present

Led architecture, infrastructure, and full-stack development of a cybersecurity MDR (Managed Detection and Response) SaaS platform across alerts, incident management, threat intelligence, and security analytics.

Infrastructure & Cloud

- Consolidated the entire backend API into a single Lambda dispatcher behind a catch-all API Gateway proxy to stay within CloudFormation resource limits, while preserving clean per-route isolation across all API endpoints.
- Introduced stage-isolated Lambda deployment layers and Aurora PostgreSQL via RDS Data API to support safe, independent rollbacks across development, staging, and production environments.
- Authored Pulumi IaC to provision S3/SQS log-ingestion pipelines with dead-letter queues and Cribl Stream integration for security event routing and observability.
- Designed a chunked file transport protocol through Lambda to support large document uploads and downloads within serverless payload constraints.
- Hardened deployment and developer environments: secrets via AWS SSM and Secrets Manager with a zero-hardcoded-credential policy, plus a Docker Dev Container standardizing the full-stack monorepo across ARM and x86.

Frontend & AI Product

- Led frontend architecture and delivery of the MDR dashboard in React and TypeScript — modular feature domains, TanStack Router/Query, Chakra UI, and high-density data tables for alerts, incident detail, and executive analytics.
- Built a Figma-to-code pipeline using Figma Desktop MCP and Claude Code, and authored persistent project rules and agent skills encoding design tokens, component conventions, and security constraints — enabling repeatable AI-assisted UI delivery across the team.
- Led the team's migration of the AI-assisted development workflow from Cursor to Claude Code, porting rules and conventions into CLAUDE.md and reusable agent skills adopted across the engineering org.
- Architecting an LLM-powered security assistant for the MDR dashboard to help analysts investigate alerts, summarize incidents, and navigate threat context — with tenant-scoped data access and guardrails for sensitive telemetry.

Engineering & Architecture

- Enforced multi-tenant data isolation across the database, API, and frontend caching layers to prevent cross-tenant data leakage.
- Led migration from DynamoDB to Aurora PostgreSQL, introducing indexed querying and pre-aggregated analytics — reducing application load times by ~75%.
- Built a concurrent Jira data sync pipeline in Python with rate-limit-aware concurrency controls for reliable large-scale synchronization.
- Integrated Google DLP (Data Loss Prevention) enrichment at the data ingestion layer to classify actor origin and visibility for downstream detection rules.
- Delivered MITRE ATT&CK coverage tracking and executive security KPI (Key Performance Indicator) dashboards measuring response time, escalation rate, and analyst workload.

IAVO Research & Scientific — Software Engineer III, Geospatial Systems

Jun 2023 – Jul 2024

- Developed full-stack geospatial applications using React, OpenLayers, and backend service integrations.
- Built GeoJSON/KML (Keyhole Markup Language) processing workflows, video annotation tooling, and interactive mapping capabilities.
- Improved deployment reliability through Docker-based infrastructure and RHEL (Red Hat Enterprise Linux) hardening for air-gapped environments.
- Performed technical design reviews and mentored engineers.

Armature Systems — Software Engineer

Mar 2022 – Jan 2023

- Built and maintained automation workflows using Tines to orchestrate security operations processes.
- Implemented enterprise SSO integrations using SAML and Okta.
- Collaborated across engineering and security teams to improve platform reliability and deployment processes.

Contract & Freelance — Software Engineer / QA (Quality Assurance) Specialist

Jan 2023 – Jun 2023

- Implemented SAML-based SSO for a legacy PHP application (Creative Design Systems).
- Performed manual and automated testing, regression, and release verification (Globiox).

SELECTED PROJECTS / OPEN SOURCE

Sprigit — AI-assisted git workflow desktop app

Tauri 2 · React 19 · TypeScript · Rust

- Worktree-first git workspace presenting branches, worktrees, and remote status in a single unified view.
- AI-assisted change splitting that groups messy working changes across multiple branches with hunk-level manual control; multi-provider (Anthropic Claude, OpenAI, or local Ollama for fully private analysis), with API keys stored in the OS keychain and sensitive files excluded from diffs.
- GitHub pull-request management with AI-generated titles/descriptions, reviewer notifications, and status syncing.
- Linear / Jira issue integration that maps changes to existing tasks and auto-updates their statuses.
- Automated upstream rebase detection with one-click rebase.
- Rust core (Tokio, git2 + git CLI) with ts-rs-generated typed IPC (Inter-Process Communication) to a TanStack Router/Query + Tailwind/shadcn frontend.

Prose — Local-first AI legal document assistant (macOS)

Tauri 2 · SvelteKit 5 · Rust · Python (FastAPI, LanceDB) · On-device + Cloud LLM (Llama 3.2 / Anthropic / OpenAI)

- Built a local-first desktop app for pro-se litigants that ingests a user's own case documents, runs a RAG (Retrieval-Augmented Generation) pipeline (fastembed + LanceDB) over them, and drafts structured form data with a swappable on-device (llama.cpp) or cloud (Anthropic/OpenAI) LLM engine.
- Architected the three-tier IPC boundary: a SvelteKit 5 SPA (Single Page Application) calling into a Rust core (SQLite, vault encryption, LLM clients) that talks to a Python/FastAPI sidecar (PyMuPDF ingestion, chunking, vector retrieval) over localhost HTTP (Hypertext Transfer Protocol).
- Implemented a guided questionnaire, split-screen draft review with live PDF (Portable Document Format) preview, and hearing-prep tooling (structured brief plus multi-turn mock hearing) with full citation traceability back to source documents.
- Shipped fill/flatten support for eight California Judicial Council forms (FL-300, FL-305, FL-311, FL-312, FL-319, FL-150, FL-157, FW-001) via a form registry, with OS-keychain-stored API keys and a hardware-benchmark-driven model tier for the on-device engine.

Corscribe — HIPAA (Health Insurance Portability and Accountability Act)-conscious AI medical scribe for cardiology (Web)

Next.js 16 · React 19 · FastAPI · LangChain · Supabase (Postgres + RLS) · Clerk · Deepgram Medical · Azure OpenAI / AWS Bedrock

- Architected a HIPAA-conscious cardiology AI scribe: a Next.js 16 / React 19 frontend-BFF (Backend For Frontend) backed by a FastAPI service bridging Deepgram Medical streaming ASR (Automatic Speech Recognition) to a LangChain-orchestrated SOAP (Subjective, Objective, Assessment, and Plan) note generator (Azure OpenAI GPT-4o or AWS Bedrock Claude 3.5 Sonnet).
- Designed a stateless, no-PHI (Protected Health Information)-at-rest audio pipeline and a transcript PHI scrubber (names, MRNs (Medical Record Numbers), SSNs (Social Security Numbers), phone numbers, emails) feeding a schema-enforced LLM extraction of NYHA (New York Heart Association) class, ejection fraction, hemodynamics, cardiac exam findings, and medication reconciliation.
- Implemented dual-layer multi-tenant Postgres RLS (Row-Level Security) via Supabase, scoped by Clerk JWT (JSON Web Token) at both the clinician and organization level, plus FHIR (Fast Healthcare Interoperability Resources) SMART App Launch integration with signed client assertions and quarterly JWKS (JSON Web Key Set) key rotation for EHR (Electronic Health Record) write-back.
- Authored the HIPAA security risk analysis and BAA (Business Associate Agreement)/subprocessor tracker, and stood up CI/CD across Cloudflare Workers (FastAPI containers), OpenNext (Next.js), and Supabase migrations with a Vercel-based rollback surface.

TerraForge — Civil engineering design platform (Open Source)

Tauri 2 · React 19 · TypeScript · React Three Fiber · Zustand · Rust · github.com/hashjaco/TerraForge · MIT

- Built a parametric civil-engineering CAD (Computer-Aided Design) platform (surfaces, alignments, profiles, corridors, pipe networks) with a Rust geometry engine performing Delaunay triangulation, corridor extrusion, and pipe hydraulics.
- Designed a dependency-graph (DAG — Directed Acyclic Graph) core in Rust that propagates changes across dependent objects and recomputes only the dirty, topologically-sorted subset, with parallel-group detection for independent recomputation.
- Built real-time, GPU (Graphics Processing Unit)-accelerated 3D visualization of terrain, corridors, and pipe networks with React Three Fiber, backed by spatial indexing/chunking for large models.
- Designed an education-first UX (User Experience) — command palette, dockable panels, contextual tutorials/tooltips, and a plugin API for extensibility.

EDUCATION & CERTIFICATIONS

B.S. Computer Science — San Francisco State University

Certified ScrumMaster (CSM) — Scrum Alliance