

STEFAN O. JUMA

FULL-STACK & APPLIED AI SOFTWARE ENGINEER

Product engineering across AI, web, mobile, backend, data and realtime systems

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7.5

YEARS ENGINEERING

10,000+

USERS SUPPORTED

20+

PRODUCTION FEATURES

40%

FASTER BUILDS

CORE STACK

Frontend & Mobile

Angular 22, React/Next.js, Ionic/Capacitor, React Native/Expo, TypeScript 6

Backend & Realtime

Node.js 24/22, NestJS 11, Python/FastAPI, Java/Spring Boot, REST, WebSockets/Socket.IO

Data & AI

PostgreSQL/PostGIS, Supabase/RLS, pgvector, RAG, embeddings, permission-aware retrieval, OpenAI/Ollama

Cloud & Delivery

Vercel, GCP, AWS, Docker, GitHub/GitLab CI, Playwright/Vitest/Cypress, production support

HOW I WORK

- Own products end to end from problem discovery through production and iteration
- Design permissions, failure paths and business rules explicitly rather than hiding them in UI or AI prompts
- Work directly with users and stakeholders to turn messy workflows into maintainable software
- Balance product speed with testing, observability, deployment safety and measurable usage

PORTFOLIO



selfawaretech.com

PROFILE

Full-stack and applied AI engineer with 7.5 years of professional experience shipping production web, mobile, backend, data and AI-enabled systems. Recently built Tasko, a live multi-tenant AI operations platform with permission-aware company knowledge and integration infrastructure, and Haulio, a live Kenya-first freight marketplace with route/capacity matching and realtime foundations. Earlier work includes scientific modelling software used by 10,000+ users, offline-first inventory products, mobile marketplaces and enterprise recruitment systems. Comfortable owning architecture, implementation, testing, deployment, analytics and production debugging.

EXPERIENCE

Cell Collective / University of Nebraska-Lincoln

Full-Stack Software Engineer | Jan 2023 - May 2026 | Remote

- Delivered 20+ production features for a scientific modelling platform supporting 10,000+ researchers and users.
- Built React/TypeScript dashboards, reusable product modules and API-driven Node.js/Python workflows for complex scientific use cases.
- Reduced monorepo build times by approximately 40% and owned performance profiling, production debugging, code review, CI pipelines and release quality.

SelfAwareTech

Founder & Independent Software Engineer | Feb 2021 - Present | Remote

- Built and deployed Tasko, a live secure AI operations product with auth, tenant/RLS boundaries, onboarding, permission-scoped knowledge retrieval, assistant history and OAuth/integration infrastructure.
- Built and operate Haulio, a live freight marketplace with route/capacity matching, pricing and booking state machines, while modernizing it toward Angular/Ionic/NestJS/PostGIS.
- Built and published Stok and Nyumba across Android and web, including offline-first workflows, public acquisition funnels, analytics/attribution and conversion-focused product demos.
- Created a reusable centralized admin/POC surface across Tasko and Haulio, consolidating authentication and data access within serverless deployment constraints.

EnigmaScore

Senior Software Developer | Feb 2019 - Nov 2022 | Nairobi / Hybrid

- Led full-stack development of an enterprise recruitment platform using Angular, TypeScript, Java/Spring Boot and PostgreSQL.
- Worked from customer workflow and data modelling through APIs, authentication, scoring logic, analytics and production delivery.
- Owned AWS deployments and production debugging, and helped adapt workflows for early customers including KFC and Rise & Learn.

Tasko

Live AI operations platform | Sep 2026 - Present

Built a secure multi-tenant company AI platform with real authentication, roles and departments, forced RLS, onboarding, private knowledge ingestion, permission-filtered vector retrieval with citations, persistent assistant history and OAuth/provider

Angular 22 | TypeScript 6 | Supabase/PostgreSQL | pgvector | Vercel

Haulio

Live Kenya-first freight marketplace | Aug 2026 - Present

Built shipment intake, route and capacity matching, cargo compatibility, pricing, quote/booking state machines and tracking foundations. V2 modernization spans Angular web, Ionic mobile, NestJS APIs, PostGIS and Socket.IO while the live Next.js app stays

Angular | Ionic/Capacitor | NestJS | PostgreSQL/PostGIS | Socket.IO

Stok + Business Intelligence

Offline-first retail platform | 2021 - Present

Built Android and web inventory workflows plus forecasting BI. Recent work added a Vercel web deployment, zero-login interactive example-shop sandbox, browser-local demo-to-account handoff, route-level SEO, GA4 and campaign attribution.

Angular/Ionic | TypeScript | Supabase | Next.js | Recharts | Playwright

Nyumba Services

Mobile + web services marketplace | 2025 - Present

Built provider discovery, location-aware requests, messaging, notifications and B2B workflows. Reached 1,000+ downloads and 120+ providers; recent web work lets users complete a request before sign-in and restores the draft through authentication.

React Native | Expo | TypeScript | PostgreSQL | Firebase | Supabase

ENGINEERING RANGE

Secure AI & Knowledge Systems

RAG, embeddings, pgvector, permission-aware retrieval, citations, local/cloud model-routing boundaries, auditability and human-controlled AI workflows.

Realtime, Logistics & Domain Systems

WebSockets/Socket.IO, route and capacity matching, PostGIS, pricing, booking state machines, tracking foundations and explicit domain rules.

Mobile, Web & Offline-First

React/Next.js, Angular, React Native/Expo, Ionic/Capacitor, local-first persistence, synchronization, Android release workflows and responsive web products.

Product, Growth & Platform Operations

Public product demos, onboarding funnels, technical SEO, analytics/attribution, conversion tracking, reusable admin surfaces and production deployment.

ADDITIONAL COMMERCIAL WORK

Prospect 33

Remote US engagement using React, TypeScript, Node.js, REST and GPT-3-based interview/question scoring.

Spotadev

Remote full-stack engagement using Angular, Java/Spring Boot and relational database workflows.

SELECTED IMPACT

Production Scale

20+ shipped features, 10,000+ scientific users and roughly 40% faster monorepo builds.

Product Adoption

Nyumba reached 1,000+ downloads and 120+ providers while expanding across three Kenyan cities.

Current Breadth

Live AI, logistics, mobile, web and offline-first products with end-to-end technical and product ownership.

EDUCATION

Bachelor of Science in Computer Science | Meru University of Science and Technology | Kenya

LINKS

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