Muhammad Huzaifa

Software Engineer · Mobile, Full-Stack & AI

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Software engineer who builds whole products: the mobile app, the backend and dashboards behind it, the AI features inside it, and the infrastructure that ships it. In 2026 I built five mobile products and released four of them to the App Store and Google Play, as sole or lead engineer on most. Three-plus years in production with React Native and Expo, TypeScript and Next.js, Python (FastAPI, Django) and NestJS, PostgreSQL and Redis, LLM features on Anthropic and OpenAI, and AWS and Azure deployments behind CI/CD.

2026 PRODUCT DELIVERY

5 apps built. 4 live on the App Store & Google Play.

5 live store releases · **3** submissions in review
1 app in development · plus a live PWA

Wash42	HeadQuarters CRM	Dugan Psychiatry	Hani by Rehani	ProperTkt
Car-wash booking & membership	Field-service CRM for crews	Mental-health care, video visits	AI property concierge	Maintenance tickets for landlords
App Store — Live	App Store — Live	Google Play — Live	App Store — Live	Android APK — Preview
Google Play — Live	Google Play — In review	App Store — In review	Google Play — In review	Store release — Upcoming
Web app (PWA) — Live	Website — Live	Website — Live	Website — Live	Website & API — Deployed
The Monk Co.	The Monk Co. · sole engineer	The Monk Co.	Rehani Soko · sole engineer	Freelance · sole engineer

EXPERIENCE

The Monk Co. · Software Engineer

Jan 2026 – Present

Full-time · Hybrid · Product engineer on client products, from requirements and architecture to store release

- **HeadQuarters CRM:** sole engineer on all three codebases: a React Native/Expo app, a Next.js website and a FastAPI/PostgreSQL backend with a Redis worker. Built offline-first sync so jobs and photos captured without signal upload later in retry-safe steps, never lost or duplicated. Also built Stripe subscription billing, email verification, FCM/APNs push and real-time team chat.
- Provisioned HeadQuarters' AWS environment as code (CDK: EC2, S3 backups, ECR, SES with DKIM) with GitHub Actions deploys, Sentry monitoring and a 100-plus-check API walkthrough, plus Playwright and Maestro end-to-end tests ahead of release.
- **Wash42:** built the iOS and Android apps and the admin panel, and wrote most of the FastAPI backend: bookings, ValorPay payments with idempotency and signed webhooks, recurring membership billing with prorated upgrades, and Microsoft Entra External ID sign-in. Raised backend test coverage to 90% and made CI enforce it.
- Built the Wash42 **Progressive Web App** (React, TypeScript, Vite, Redux Toolkit, Workbox) matching the native app across 37 screens, with an offline outbox and Web Push. Lighthouse: PWA 100, accessibility 100, mobile performance 90–95. Deployed on Azure Static Web Apps.
- **Dugan Psychiatry:** built core features of the patient and psychiatrist app (React Native, NestJS): Clerk sign-in across app and API, role-based onboarding, real-time chat with incoming-call handling and WebRTC video visits, and Stripe appointment payments. Prepared and shipped the first Google Play release. Across all three apps, owned EAS Build/Submit, OTA updates and store submissions.

Rehani Soko LLC · Software Engineer

Apr 2023 – Nov 2026

Remote (Washington, D.C.) · Full-time Nov 2024 – Nov 2026 · earlier contract roles: Data Manager, then Full Stack Developer (Apr 2023 – Oct 2024)

- **Hani** (App Store live · Google Play in review)**:** built the Hani iOS/Android app (Expo SDK 57, React Native, Reanimated) and the Django service behind it, as sole author of both. It covers phone/WhatsApp OTP, Apple, Google and Facebook sign-in, biometrics, search, saved homes, viewings and offers.
- **Hani's AI:** it searches Rehani and partner-portal listings, merges cross-portal duplicates by photo hash, ranks matches and re-hunts daily with price-drop alerts. It negotiates rent with agents over WhatsApp inside the seeker's budget. Claude reads agents' replies, and every answer is validated (a quoted price must appear in the message) with a conservative rules fallback. Also built photo search on Claude vision (EXIF stripped, nothing stored).
- Shipped **Hani V2** to production: multi-term negotiation with private targets and an agent mode behind feature switches, backed by 350+ backend and 400+ mobile tests. Closed production security holes found in my audit, including anonymous account takeover and unauthenticated listing deletion, and verified both fixes in production.
- **Tangaza** (Rehani's diaspora ad platform): main backend contributor to listing boosts. A paid boost becomes Meta Click-to-WhatsApp and Google Search campaigns, with ad copy from an LLM fallback cascade, automated Instagram and Messenger

comment replies, and leads routed to Hani. Rebuilt the QR/flyer landing page into a property-first Listing Mode with built-in Hani chat.

- Built the automated quality gate for **AI-generated virtual-tour videos**: ffmpeg extracts frames, a model scores each clip against its source photo, failing clips regenerate, and unresolved scenes open tickets in the React admin panel.
- Ran the platform's LLM layer: routing across Anthropic and OpenAI model tiers with per-request token-cost tracking, WhatsApp and web assistants with long-term user memory and Whisper/TTS voice, embeddings-based matching, and schema-validated LLM underwriting.
- Built the scraping and cleaning pipeline for ~50,000 listings a month (about 35% more reliable after consistency checks). Led feature work on the Nuxt/Vue site, including the Hani app landing page, shipping through GitHub Actions, GitLab CI, Docker and AWS Amplify.

Earlier experience

Agent Arc · Frontend Lead Developer: led the frontend of an AI-driven Solana trading terminal (Next.js, Privy auth, staking contracts); won 3rd Prize, AI Track, Solana Breakout Hackathon (project) — Jan – Jul 2025

Lovum Group · Software Engineer (part-time): Next.js frontends and Python APIs for EduEssential and Waridi — Jan 2024 – Dec 2025

Algorithm Consulting · Junior Developer: ASP.NET enterprise modules, query performance and release stability — May – Oct 2024

CrossWing Inc. · Full-Stack Developer: React web apps for robotics products, with the AI/ML team — Mar – Nov 2023

My AskAI · Backend Developer: Node.js validator for an OpenAI training-data API · **Profecia Links** · Software Engineer — 2022 – 2023

FEATURED PROJECTS

ProperTkt · Freelance, sole engineer · maintenance tickets and tenant communication for small landlords — Oct 2026 – Present

Built the FastAPI/PostgreSQL/Celery API, the React web dashboard and admin console, and the Expo app, all on one OpenAPI contract. The API and website are deployed on AWS (CDK, EC2, CloudFront, nightly S3 backups) with staging-to-main auto-deploys; the mobile app is in development with an Android preview build. propertkt.com · Android APK (preview)

self-healing-rag · eval-gated RAG service · Python, FastAPI, LangGraph, pytest, GitHub Actions — Aug 2026

Answers from documentation, critiques its own drafts, retries, and abstains rather than guessing. On a 60-question golden set graded by a cross-provider LLM judge: 4.4% hallucination, 0% false answers, 100% citation accuracy, $0.0005/query. CI blocks any merge that regresses quality, latency or cost. github.com/huzaifa620/self-healing-rag

F1GPT · Formula One RAG chatbot · Next.js 15, Vercel AI SDK, LangChain, Astra DB, Puppeteer — Aug 2025

Scrapes and chunks F1 sources, stores embeddings in Astra DB vector search, retrieves the closest matches for each question and streams grounded answers. github.com/huzaifa620/rag-f1gpt-chatbot-nextjs

SmartScan Billing Assistant · computer-vision checkout · Python, YOLOv8, object tracking — May – Jul 2024

Recognises products from a camera feed and totals the bill; deployed across 1,200+ products in a working supermarket.

TECHNICAL SKILLS

Languages	TypeScript, JavaScript, Python, SQL, C#
Mobile	React Native, Expo (EAS Build, Submit, Update), Expo Router, Reanimated, offline sync, push (FCM/APNs), WebRTC, App Store & Google Play releases
Frontend	React, Next.js, Vue/Nuxt, Vite, Tailwind CSS, Redux Toolkit, TanStack Query, PWAs (Workbox)
Backend & Data	FastAPI, Django/DRF, NestJS, Node.js, Celery, REST/OpenAPI, Socket.IO · PostgreSQL, SQL Server, MongoDB, Redis
AI / LLM	Anthropic Claude & OpenAI APIs, multi-model routing, vision, structured-output validation, RAG, LangChain, LangGraph, embeddings, LLM-as-judge evaluation, Whisper
Cloud & DevOps	AWS (CDK, EC2, S3, CloudFront, SES, ECR, Amplify), Azure (Static Web Apps, Entra External ID), Docker, GitHub Actions, GitLab CI, Vercel, Sentry
Integrations	Stripe, ValorPay, Clerk, Twilio, Meta Marketing & WhatsApp APIs, Google Ads API
Testing	pytest, Jest, Playwright, Maestro, coverage gates in CI, Lighthouse

AWARDS & PUBLICATIONS

3rd Prize, AI Track ($15,000), Solana Breakout Hackathon 2025, from 8,300+ global submissions (Agent Arc).

An Integrated Approach to Robotic Object Grasping and Manipulation. arXiv:2411.13205, 2024.

Smart Shelf Advertising using Real-Time Product Segmentation on Low-Cost Edge Devices. Preprint, 2025.

EDUCATION

NED University of Engineering & Technology, Karachi
Bachelor of Engineering (Computer Systems) · 2019 – 2023 · CGPA 3.29/4.0