

HANZALAH WAHEED

✉ hanzalah.w@gmail.com ☎ +971 567975208 🌐 [GitHub](#) 🔗 [LinkedIn](#) 🌐 hanzalahwaheed.com 📍 Dubai, UAE

SKILLS

Languages: Python, TypeScript, JavaScript, SQL

Web: Next.js, Tailwind CSS, Node.js, FastAPI, Nginx

Databases: PostgreSQL, Drizzle ORM, Redis, MongoDB

AI: LLMs, RAG, guardrails, embeddings, pgvector

Cloud: AWS, Vercel, Cloudflare

Tools: Docker, Git, Linux, Claude Code

EXPERIENCE

Software Development Engineer, *StockInsights.ai*

Aug 2024 - Present

- Designed and shipped a **RAG pipeline** for financial filings using OpenAI text-embedding-3 with pgvector on AWS RDS and GPT series LLMs, auto-summarizing **25,000+ filings monthly** and cutting per-filing analysis time from minutes to seconds.
- Migrated full-text search from MongoDB Atlas to PostgreSQL, redesigning indexing and relevance scoring for large financial documents, delivering **~120% faster** search and cutting infrastructure costs by **USD 5,000+/yr.**
- Investigated anomalous traffic through Vercel logs, identified distributed scraping and AI-crawler activity, and deployed firewall rules and bot protection, cutting monthly Vercel spend from **~\$500 to under \$100** (~80%, USD 4,800+/yr).
- Architected a multi-session **AI chat system** (Vercel AI SDK, PostgreSQL) serving **100,000+ conversations**, with concurrency control for parallel streaming sessions.
- Owned the entire StockInsights frontend: code architecture, core user flows, and performance, improving **LCP** through image loading, layout stability, and critical-rendering-path optimization (Next.js, Tailwind CSS).
- Built end-to-end API monetization with **Stripe** metered billing, checkout, and automated webhooks, launching the company's **first recurring API revenue stream.**
- Built **OTP verification** and real-time WhatsApp alerting with rate limiting and cron automation, processing **2,000+ messages daily.**

Google Summer of Code Contributor, *DataLoom (C2SI)*

June 2026 - Present

- Built the **data profiling engine** for an open-source data-wrangling platform: type-aware column statistics, automatic distribution detection (skew, zero-inflation, cardinality), and Pearson correlation heatmaps, cutting profile load time by **26%** by batching column profiles into a single request with cache invalidation on table change.
- Expanded ingestion and export from CSV-only to **five formats** (CSV, TSV, JSON, XLSX, Parquet), and secured the platform with JWT cookie authentication and per-user project ownership enforced at the API-dependency layer.
- Consolidated a dual-endpoint transform API into a single registry-dispatched endpoint and rebuilt the workspace UI (tabbed layout, virtualized spreadsheet-style table, type-aware column selectors); authored **100+ pytest cases** across auth, security, and transformations.

PROJECTS

prfrd | Next.js, Vercel AI SDK, TypeScript, PostgreSQL, Drizzle, OpenAI

[Repository](#) | [Live Demo](#)

- Built an adversarial **multi-agent analysis engine**: advocate and examiner agents debate opposing, evidence-backed positions on an engineer's quarterly signals, with an arbiter decision and full debate transcripts persisted to PostgreSQL for auditability.
- Designed the signal pipeline and data model: weekly GitHub and Slack activity normalized into PostgreSQL, synthesized into monthly and quarterly evidence that grounds every agent claim.
- Shipped role-based dashboards: manager views with team KPI rollups, risk flags (after-hours load, blockers), and engineer drill-downs backed by the persisted agent outputs.

ProductOwl | Next.js, TypeScript, BrightData, Cheerio, MongoDB

[Repository](#) | [Live Demo](#)

- Built a web scraping system using **BrightData** and Cheerio to extract structured product data from Amazon.
- Automated scheduled **price monitoring** with cron jobs, detecting pricing changes in near real time.
- Implemented an automated **email alert workflow** notifying users when tracked prices drop below their targets.

EXTRA-CURRICULAR

- Open Source:** Merged multiple pull requests improving React UIs and Python backends across repositories totaling **17,000+ combined stars**; active Hacktoberfest 2023 & 2025 contributor on feature development, bug fixes, and code-quality improvements. [Github Gist](#)
- Achievements:** Won **Best Project Presentation** at the college Open Day for GIST-3DR, a generative implant-segmentation system with integrated 3D and AR visualizations for dental implant planning. [Repository](#)

EDUCATION

Dayananda Sagar College of Engineering - Visvesvaraya Technological University

Bachelor of Engineering in Computer Science and Design

Bangalore, India

CGPA 9.0/10.0