

AMANI MAVU MKONGO

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Summary

Full-stack engineer who's spent the last year going deep on backend systems and AI integration — building a multi-tenant fleet-management platform from telemetry ingestion to a natural-language analytics layer on GPT-4o-mini. Comfortable owning a product end to end: real-time data pipelines, cost-optimized LLM tooling, and the deployment infrastructure that keeps it all running. Background in industrial mathematics gives an edge in reasoning about systems, not just shipping features.

Experience

Backend Engineer — Freelance (LindAI)

April 2025 – March 2026

- Built a multi-tenant GPS fleet-management platform on Bun/TypeScript, syncing real-time vehicle telemetry from an external IoT API into a normalized SQLite database
- Designed an AI analytics engine on GPT-4o-mini with 12+ function-calling tools, letting users query mileage, fuel, trips, and driver behavior in plain English — cutting the need for manual dashboard digging
- Reduced LLM cost and latency by implementing semantic-embedding query caching (text-embedding-3-small, cosine similarity) with tiered TTLs
- Built a rate-limited sync layer (sliding-window throttling, exponential backoff, retry-on-failure) with per-tenant token caching and in-flight deduplication to prevent API failures
- Automated report generation (styled PDF dashboards via pdf-lib, Excel workbooks via ExcelJS) on scheduled cron jobs, removing a manual reporting step
- Containerized and deployed the service with Docker behind a Caddy reverse proxy for reliable, repeatable deployments

Frontend Web Developer — MyGolf Hub

July 2025 – September 2025

- Built and maintained a scalable PHP 8.4 web app with a modular, template-based architecture, handling both front-end and back-office operations
- Set up GitHub Actions CI/CD to cPanel hosting, streamlining deployments and eliminating manual FTP pushes
- Implemented secure remote file sync with exclusion rules, preventing accidental exposure of sensitive files
- Managed authentication, authorization, and CRUD operations across multiple modules

Frontend Web Developer — Hasibu Technologies Limited

June 2023 – April 2025

- Built and maintained the Hasibu Console, a central dashboard giving the business visibility into subscriptions, revenue, and client activity
- Improved application security by implementing permission guards across the platform
- Increased code reliability by writing and maintaining tests for custom hooks and utility functions
- Cut build and deployment time by optimizing the GitHub CI workflow and automating deployments with Dokploy
- Monitored production performance and resolved bugs to keep the app running smoothly

Education

BSc, Industrial Mathematics — Jomo Kenyatta University of Agriculture and Technology, Nairobi (2022)

Skills

Languages: JavaScript, TypeScript, Python, PHP

Frontend: React, Next.js, Angular, Astro, Tailwind, Bootstrap, Ant Design

Backend: Express, Laravel, Bun

Databases: SQL, MySQL, SQLite

AI/LLM Tooling: OpenAI GPT-4o-mini function calling, embeddings, semantic caching

DevOps: Docker, Linux, Apache, Nginx, GitHub Actions, Caddy

Testing: Jest, Vitest

Interests

Exploring new AI tools and front-end libraries, and following software engineering trends through technical blogs.