ALLAN KAMAU

Software Developer | Computer Science Student | Backend & AI Applications

Contact

Nairobi, Kenya

+254 742 996 794

allankamau517@gmail.com

Websites & Profiles

allankw-dev.github.io

linkedin.com/in/allan-kamau2

github.com/Allankw-dev

Skills

Languages
Python, Java, JavaScript, TypeScript, SQL, HTML/CSS

Backend & APIs
FastAPI, Node.js, Express.js, RESTful API Design, JWT Authentication, Role-Based Access Control, Pydantic, Microservices

Frontend
React, Next.js, Streamlit

Databases
PostgreSQL, MySQL, SQL Server, Supabase, SQLAlchemy ORM, Schema Normalization, Triggers & Stored Procedures

AI & Machine Learning
Scikit-learn, NLP, TF-IDF, Cosine Similarity, Vector Embeddings, LLM API Integration, Prompt Engineering

Cloud & DevOps
OCI, AWS Fundamentals, Render, Vercel, Docker (Basic), Linux CLI, CI/CD Basics, Git & GitHub, Postman

Practices & Tools
OOP, Design Patterns, Domain-Driven Design, TDD, Agile, Debugging, Technical Documentation, Claude Code, GitHub Copilot

Education

BSc Computer Science
St. Paul's University, Nairobi, Kenya
Aug 2024 – Expected 2027
GPA: 3.8 / 4.0 (expected)
Coursework: Advanced Database Systems, Software Testing, OOP (Java)

Certifications

Google Developers AI Programme Certificate

Python Certification

Professional Summary

Software developer and Computer Science student who ships to production. Builds end to end, from database schema and API to UI, including a live AI-powered hiring platform that ranks resumes with machine learning. Backend-focused (Python, FastAPI, PostgreSQL) with hands-on experience in authentication, cloud deployment, and fixing production issues. Seeking an entry-level software engineering or machine learning role to build reliable, AI-enabled products.

Project Experience

Ledgr: School Fee Management System — May 2026 – Oct 2026

Personal Project | Live Demo

- Built and deployed a school fee platform (students, guardians, invoices, payment plans) with a React/TypeScript frontend on Vercel and a JWT-secured API; tested with sample data (9 students, 18 invoices, 33 payments).
- Enforced least-privilege access with PostgreSQL Row-Level Security on Supabase, using separate database roles for migrations and live requests.
- Automated fee reminders by email and SMS via Africa's Talking.

Household Energy Analytics Database — Jan 2026 – Apr 2026

Academic Group Project | GitHub

- Designed a normalized four-table PostgreSQL schema with 3 triggers and 4 stored procedures, and built a Node.js/Express REST API tested with a Postman collection.
- Led the OCI deployment: configured a VCN, placed Postgres on a private subnet, and ran the API on an Oracle Linux instance.
- Resolved out-of-memory kills, SSL certificate chain errors, and data-quality issues; wrote the technical report and deployment runbook.

AI-Powered Hiring Platform — Jun 2025 – Nov 2025

Personal Project | Live Demo | GitHub

- Built and deployed a full-stack hiring platform (FastAPI, Streamlit, Supabase PostgreSQL) with 23 registered users: recruiters post jobs, candidates upload resumes, and a dashboard tracks applicants.
- Implemented automated resume ranking with TF-IDF and cosine similarity in scikit-learn to reduce manual screening; added "Hira", an in-app AI assistant.
- Secured the system with JWT authentication, role-based access control, rate limiting, and input sanitization.
- Fixed production email failures on Render by moving to the Resend API, then to FastAPI background tasks to eliminate frontend timeouts.

Personal Portfolio Website — Feb 2025 – Apr 2025

Personal Project | Live Site

- Built and deployed a portfolio on GitHub Pages (HTML/CSS/JavaScript) that pulls project data live from the GitHub API, with interactive case-study modals.