

ELISHA KARANJA

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GitHub: github.com/elishakaranja

Portfolio: <https://elishakaranja.github.io/portfolio/>

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SOFTWARE ENGINEER (Backend / Full-Stack)

Backend-focused software engineer with experience designing and building RESTful APIs, transactional systems, and full-stack applications using Python, Flask, SQL, and React. Strong foundation in data modeling, authentication, and API design, with hands-on exposure to cloud-based AI integrations. Comfortable working in collaborative environments and shipping production-style features under time constraints.

PROJECTS

Mindset-Coach – AI-Powered Mindset & Self-Improvement System

GitHub: https://github.com/elishakaranja/Mindset_coach

- Designing and building an AI-driven coaching system that delivers grounded, research-based guidance using Retrieval-Augmented Generation (RAG).
- Implemented a document ingestion and embedding pipeline to retrieve responses from curated scientific and psychology-based sources rather than generic LLM output.
- Architected backend logic to separate knowledge retrieval, prompt construction, and response generation for safer and more controllable outputs.
- Actively iterating on prompt engineering strategies to improve response grounding, clarity, and consistency.
- Planning fine-tuning experiments to reduce hallucinations and better align outputs with evidence-based material.

M-SHIGANA – Money Transfer Application

GitHub: <https://github.com/Steamgx/M-SHIGANA>

- Built a backend system for peer-to-peer money transfers using Flask and SQL, supporting users, beneficiaries, and transactional records.
- Designed relational schemas to maintain consistency and integrity across financial transactions.
- Developed RESTful APIs consumed by a React frontend for initiating transfers and retrieving transaction history.
- Implemented authentication and request validation to secure sensitive operations.
- Collaborated in a team of 5+ developers, resolving API integration issues under tight timelines.

Ticketi – Event Ticketing Platform

GitHub: <https://github.com/elishakaranja/ticketi>

- Deployed a full-stack ticketing platform enabling event creation, pricing, and ticket purchasing.
- Designed backend APIs with Flask to manage events, ticket inventory, and user workflows.
- Modeled relationships between users, events, and tickets using a relational database.
- Integrated React frontend components with backend endpoints, ensuring predictable data flow.

Ambulance Request Application

GitHub: <https://github.com/fahmy-dev/ambulance-app>

- Contributed to a collaborative emergency response platform with a Flask backend and React frontend.
- Led backend domain modeling for ambulance requests, users, and request lifecycle states.
- Implemented secure routing and access control for protected endpoints.

Coordinated closely with frontend teammates to align API contracts with map-based request tracking.

TECHNICAL SKILLS

Languages

Python, JavaScript, SQL

Backend & APIs

Flask, FastAPI, RESTful API design, Authentication (JWT/session-based), Domain modeling, CRUD systems

Frontend

React, HTML, CSS

Databases

PostgreSQL, SQLite

DevOps & Tools

Git, Docker, Postman, VS Code

Cloud & AI

Azure OpenAI, LangChain (RAG pipelines, embeddings)

EDUCATION & CERTIFICATIONS

Moringa School – Software Engineering Program

Focused on backend development with Python, RESTful API design, databases, frontend fundamentals, and collaborative software engineering practices.

Oracle AI Foundations & Generative AI Certifications

Covered AI fundamentals, machine learning concepts, generative AI, large language models, and Oracle cloud AI infrastructure.