

KIMATHI ELIKPLIM SEDEGAH

Software Engineer | Full-Stack & Backend Engineer | AI Systems

Ghana • Open to Software Engineering Opportunities
+233 55 130 7929 | sedkim370@gmail.com | www.kimathi.tech
linkedin.com/in/kimathi-sedegah | github.com/sedegah

PROFESSIONAL SUMMARY

Computer Science student at the University of Ghana and Software Engineer with hands-on experience designing and building full-stack applications, backend systems, AI applications, developer tools, and data-driven platforms. Experienced across Python, TypeScript, Java, JavaScript, Go, Django, Node.js, PostgreSQL, Microsoft SQL Server, Cloudflare, and modern AI technologies. Strong foundation in data structures and algorithms, database systems, API design, distributed systems, machine learning, and software architecture. Founder and Project Coordinator at Code Cadence, with experience taking software projects from concept and architecture through development and deployment.

TECHNICAL SKILLS

Programming: Python, TypeScript, JavaScript, Java, Go, SQL, Dart, Prolog

Frontend: React, Vite, Tailwind CSS, HTML, CSS

Backend: Django, Node.js, Express, FastAPI, REST APIs

Databases: PostgreSQL, Supabase, Microsoft SQL Server, SQLite, MongoDB

Cloud & DevOps: Cloudflare Workers, Cloudflare KV, Vercel, Render, Railway, Netlify, Linux, Git, GitHub

AI / Machine Learning: Retrieval-Augmented Generation (RAG), FAISS, Sentence Transformers, LLM APIs, Embeddings, NLP, Machine Learning, Computer Vision

Engineering: System Design, API Design, Database Architecture, Authentication, RBAC, Automation, CLI Development, Testing

EXPERIENCE

CODE CADENCE

2024 – Present

Founder & Project Coordinator / Software Engineer

- Founded and lead a software development initiative focused on building practical software products and developing engineering talent.
- Design and implement full-stack applications, backend services, developer tools, automation systems, and AI-powered applications.
- Work across Python, TypeScript, Java, Django, Node.js, PostgreSQL, SQL Server, and cloud infrastructure.
- Lead technical planning, system architecture, development workflows, code organization, testing, and deployment.
- Coordinate contributors across projects and translate product requirements into technical implementations.
- Built and maintained a portfolio of software projects spanning AI, machine learning, payment systems, developer tooling, algorithms, networking, and cloud applications.

REHOTECH & TAYENN

2026

Software Engineer

- Contribute to software development across application, backend, and database layers.
- Work with Flutter, TypeScript, and Microsoft SQL Server to develop and maintain application systems.
- Participate in implementation of software features, data workflows, and backend functionality.

UNIVERSITY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

2025

Software Engineer

- Developed software solutions using Python, TypeScript, Django, and PostgreSQL.
- Contributed to backend and full-stack application development.
- Designed application functionality and database-backed workflows for institutional software systems.

XLABS GH

2025

Software Engineer / STEM Ambassador

- Contributed to software engineering and technology-focused initiatives.
- Supported STEM engagement and technical activities for students and young developers.
- Collaborated on technology initiatives connecting software development with STEM education.

STEM FOR DEVELOPMENT

2024 – Present

Student Ambassador

- Promote STEM education, technology opportunities, and student participation in development initiatives.
- Support engagement activities connecting students with STEM learning and career opportunities.

SELECTED PROJECTS

NEURELIC

Retrieval-Augmented Generation • Python • FAISS • Sentence Transformers

- Built a Retrieval-Augmented Generation (RAG) system combining semantic search with transformer-based response generation.
- Implemented text embedding and vector similarity search using Sentence Transformers and FAISS.
- Designed a retrieval pipeline that provides relevant contextual information to language models before response generation.
- Explored practical applications of semantic search, embeddings, vector databases, and LLM-powered information retrieval.

GRAPHIUM

Developer Tool • TypeScript / JavaScript

- Built a dependency-analysis tool for JavaScript and TypeScript projects to visualize relationships between modules and identify architectural issues.
- Designed dependency-graph analysis capabilities for identifying circular dependencies and hidden coupling within codebases.
- Developed tooling intended to support developers in understanding and improving software architecture.

UMIS-PAY

Payment Processing • Backend • Database

- Developed a payment processing and serial-generation system tailored for university administrative workflows.
- Designed workflows for generating and managing transaction identifiers and payment-related records.
- Implemented backend logic and data-management workflows supporting reliable university payment processing.

ETA — ESTIMATED TIME OF ARRIVAL

Machine Learning • Python • Data Analysis

- Developed a machine-learning system that predicts traffic flow and estimated travel times using real-world data.
- Built a data-processing and prediction pipeline for extracting patterns from traffic conditions.
- Applied machine-learning techniques to a practical transportation and route-planning problem.

SOP2K

Algorithms • Boolean Logic • Digital Systems

- Developed an automated logic-minimization system that converts Boolean expressions into Karnaugh maps.
- Implemented algorithms for simplifying Boolean expressions and generating minimized logical representations.
- Automated a traditionally manual digital-logic workflow through symbolic processing and algorithmic reasoning.

EDUCATION

UNIVERSITY OF GHANA

2024 – 2027

BSc. Computer Science

Relevant Coursework: Data Structures & Algorithms • Database Systems • Software Engineering • Computer Networks • Operating Systems • Computer Architecture • Systems Analysis & Design • Web Development

PRESBYTERIAN BOYS' SECONDARY SCHOOL (PRESEC)

2023

West African Senior School Certificate Examination (WASSCE)

ADDITIONAL INFORMATION

Engineering Interests: Backend Engineering • Distributed Systems • Cloud Infrastructure • DevOps • Artificial Intelligence • Machine Learning • Developer Tools • System Design • Algorithms & Optimization

Professional Interests: Software Engineering • Backend Development • Full-Stack Development • AI Engineering • Cloud Engineering