

José Kupeka Muhlanga

Software Engineer - Full Stack & DevOps

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Profile

Full Stack Software Engineer with 3+ years of experience designing scalable backend systems (Java, PHP, Go) and modern frontend applications (React, Next.js). Skilled in building secure APIs, deploying containerized microservices, and automating cloud infrastructure using DevOps tools like Docker, Jenkins, and Kubernetes. Proven ability to deliver high-impact software across health, finance, and government sectors. Passionate about performance optimization, clean architecture, and sustainable digital transformation.

EXPERIENCE

Christian Health Association of Kenya (CHAK) / Software Engineer

September 2023 - Present, Nairobi, Kenya

- Maintain and extend core HMIS modules using Laravel, JavaScript, and Node.js, improving modularity and data accuracy.
- Design and build microservices in Java and Go for reporting, authentication, and data synchronization across health systems.
- Train healthcare workers across multiple counties, boosting user adoption and confidence in digital tools.
- Balance monolithic and microservice architecture under bandwidth constraints, optimizing system performance in low-resource environments.
- Contribute to agile sprint planning and regular feature releases as part of a cross-functional development team.

Africa Road Maintenance Fund (ARMFA) / Software Engineer (Consultant)

November 2024 - September 2025, Nairobi, Kenya

- Developed the organization's website using Next.js and integrated a CMS blog to enhance stakeholder communication.
- Conducted an IT infrastructure audit and assisted in deploying updated devices, improving operational reliability.
- Set up Microsoft 365 accounts, migrate domain emails, and support onboarding across departments.
- Built and deployed a Spring Boot-based learning management system (LMS) on AWS, streamlining internal training.
- Ensured infrastructure compliance with regional NGO IT standards and security practices.

Africom Media LTD / Software Engineer

January 2023 - July 2023, Nairobi, Kenya

- Developed secure peer-to-peer transaction APIs using Java and Spring Boot, enhancing platform security and scalability.

SKILLS

Languages: Java, PHP, JavaScript, GO, Kotlin, C#, Dart, Python, Ruby, Bash

Frameworks & Tools: Spring Boot, Laravel, Node, React, Next, Express, Flutter, Tailwind CSS

DevOps & Cloud: Git, Linux, CI/CD, Docker, GCP, Azure, Jenkins, Kubernetes

Databases: MySQL, PostgreSQL, MongoDB, Redis, GraphQL

Messaging: KAFKA, RabbitMQ

EDUCATION

Africa Nazarene University -

Bsc. Computer Science

September 2017 - July 2022,

Nairobi, Kenya

Sacho High School - KCSE

certificate

February 2011 - November 2014,

Baringo, Kenya

AWARDS

- DevOps CI/CD & Engineering - Moringa School (2024)
- Software Engineering - Moringa School (2023)
- Java - Vanderbilt University via Coursera (2022)
- CCNA - 2019

LANGUAGES

- English - Native
- Swahili - Native
- French - B2
- Portuguese - A1

2. Collaborated with frontend teams using React and React Native to build seamless web and mobile interfaces.
3. Improved integration and testing pipelines through the use of shared API schemas and mock services.
4. Participated in end-to-end product delivery cycles, from design to deployment.

Alliance Française / Software Engineer - Intern

September 2021 - February 2022, Nairobi, Kenya

1. Provided technical support and troubleshooting for staff devices and office infrastructure, ensuring system uptime.
2. Designed and deployed digital student feedback surveys using Google Forms and Sheets.
3. Analyzed survey data to extract insights that helped refine course offerings and improve learner satisfaction.

Kenya Revenue Authority / Software Engineer - Attaché

May 2021 - August 2021, Nairobi, Kenya

1. Built batch data processing models using JavaScript and MongoDB in Apache NiFi to streamline internal workflows.
2. Contributed to the development of an experimental streaming pipeline using Apache Kafka for hybrid batch-stream integration.
3. Delivered live demos of open-source data pipelines to internal teams, accelerating adoption of real-time processing tools.
4. Learned to design data workflows that supported both scalability and reliability in government systems.

Projects

Mpesa Integration - CHAK HMIS

Developed a secure mobile payment module enabling real-time M-Pesa transactions for patient billing. Implemented STK Push and callback handling with full integration into hospital workflows.

Stack: Node.js, Go, PHP, Safaricom Daraja API

eTIMS Integration - CHAK HMIS

Integrated eTIMS for tax compliance including digital signature setup, secure invoice submission, and real-time callback processing.

Stack: Node.js, Go, PHP, KRA-OSCU API

AfyaLink (SHA) Gateway - CHAK HMIS

Designed an integration gateway to connect HMIS and SHA platforms, supporting automated invoice posting, real-time pre-authorizations, and eligibility checks.

Stack: PHP, JavaScript, Go, OAuth2, REST APIs

Financial Transaction Gateway - Africom Media LTD

Built a secure full-stack transaction system with Spring Boot, supporting peer-to-peer transfers, user authentication, and transaction reporting.

Stack: Java, Spring Boot, PostgreSQL, JWT, Thymeleaf