

DOUGLAS WANJALA MUGWANGA

Software Engineer | Product Builder | DevOps Engineer

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melodypulse.com | yefwe.com | troli.co.ke

PROFESSIONAL SUMMARY

Software Engineer with 8+ years of experience building scalable backend systems, APIs, and digital products across telecom, SaaS, and consumer platforms. Proficient in Java, Spring Boot, PHP, Flutter, and PostgreSQL. Beyond professional roles, independently architect and ship full-stack products end-to-end — from system design to production operations — combining technical depth with strong product ownership.

CORE TECHNICAL SKILLS

Languages & Frameworks: Java, Spring Boot, PHP (Yii2, Laravel), Flutter, Node.js, Express.js

Databases: PostgreSQL, MySQL, Oracle, MongoDB

Cloud & DevOps: Docker, Jenkins, AWS, Azure, DigitalOcean, NGINX, Linux, CI/CD

Architecture: REST APIs, Microservices, Reactive Systems, Multi-tenant SaaS, RBAC, Secure Payment Integrations

Security: JWT, OAuth2, Field-Level Encryption

Tools: Git, GitHub, GitLab, Swagger, Figma, Confluence

PROFESSIONAL EXPERIENCE

Software Engineer | Safaricom PLC

Mar 2022 – Present

- Led development of a Home Fibre Payment Reminder platform, improving billing adherence and reducing customer support volume on account status inquiries.
- Introduced downloadable invoices and payment reminders, boosting accessibility for employer-sponsored billing customers.
- Contributed to Securenet API transformation, enhancing digital channel reliability, performance, and data security.
- Built a 5G router contract eligibility-check platform and supported PTMP deployment for differentiated home internet delivery.

- Designed and implemented backend APIs for web and mobile applications using Yii2 and Laravel.
- Integrated multiple backend systems and databases; managed offline server deployment for low-connectivity environments.
- Diagnosed production issues, resolved defects, and optimized application performance across the full software lifecycle.

SELECTED PRODUCT PORTFOLIO

Yefwe — *Family Productivity SaaS* | *PHP · PostgreSQL · Python · AI APIs*

- Architected a secure multi-tenant SaaS with RBAC, M-Pesa subscription billing (feature-flagged), and field-level PII encryption via PostgreSQL pgcrypto.
- Integrated a Python AI microservice for task risk scoring, weekly family insights, meal suggestions, and shopping list generation.

MelodyPulse — *Music Streaming Platform* | *PHP · Yii2 · PostgreSQL · FFmpeg*

- Built an end-to-end subscription streaming platform with SPA-like persistent audio playback, live streaming via FFmpeg/RTMP, and M-Pesa STK Push monetization.

Troli — *Household Shopping Platform* | *PHP · Yii2 · PostgreSQL · Jenkins*

- Developed collaborative shopping lists with multi-store pricing and role-based controls; integrated M-Pesa Daraja; provisioned and secured full production infrastructure.

SentiGrid — *Personal Finance Platform* | *Spring Boot · WebFlux · Flutter · PostgreSQL*

- Architected a reactive Spring Boot WebFlux backend with JWT auth, encrypted storage, and advanced PL/pgSQL financial functions; paired with a Flutter mobile app.

Retail Intelligence Platform — *Price Intelligence* | *Node.js · Puppeteer · Express.js · PostgreSQL · Claude API*

- Built Puppeteer scrapers for Carrefour, Naivas, and Jumia; engineered an LLM-powered ETL pipeline using Claude API for product normalization and cross-store matching.

EDUCATION

B.Sc. Health Records and Information Management

2011 – 2015

Kenyatta University · Second Class Honors (Upper Division)

Kenya Certificate of Secondary Education

2006 – 2009

Teremi High School · B Plain