Résumé

Sam Mugabo

Software developer (frontend and backend)

Kigali, Rwanda popesir112@gmail.com github.com/mugabosam

Profile

Software developer working across the stack, and Information Technology student at the University of Rwanda. At EUCL I set up the backend of an internal inventory and device management system and build features across its NestJS API and Next.js frontend. I build interfaces in React and Flutter, APIs in TypeScript (NestJS) and Python (Django), and small machine-learning models.

Experience

Sep 2026 – Present

Software Development Intern

EUCL (Energy Utility Corporation Limited), Kigali

- Set up the backend of DAMS, an internal inventory and device management system, and remain its most active contributor: a NestJS, Prisma and PostgreSQL REST API with JWT auth, CASL permissions and Swagger docs.
- Built spreadsheet imports that validate every row, let staff review devices before registering them, and retry safely without duplicates; added device custody reports and a readable audit trail.
- Hardened security across the API and frontend (token revocation, session handling, HSTS, dependency advisories) and maintained CI on GitHub Actions with Docker builds and Jest and Supertest suites.
- Built Next.js, React and TypeScript frontend features, including PDF receipts, Excel templates and plain-language errors, through pull requests and code review in a small team.

Selected projects

2026

MalariaCheck

Python, Machine learning, Streamlit

A web tool that tells people in under a minute whether their symptoms point to malaria, and when a blood test cannot wait.

github.com/mugabosam/Malaria-Detection

2026

EUCL device system

TypeScript, NestJS, Next.js, PostgreSQL

An internal system for EUCL, Rwanda's electricity utility, that keeps track of every device: what exists, where it is and who is responsible for it.

2026

Zunga

Flutter, Dart, Android

Mobile money without memorising codes: enter an amount and a number, tap Pay, and the carrier's own payment screen opens already filled in.

github.com/mugabosam/Zunga

2026

BlueSnap

Flutter, Dart, Bluetooth

A social app that needs no internet: chat, photos and voice notes travel phone to phone over Bluetooth and Wi-Fi.

github.com/mugabosam/BlueSnap

2026

MediChain

Solidity, React, TypeScript

Medical records where the patient decides who can see them and for how long, with an emergency option for doctors and a record of every access.

github.com/mugabosam/Blockchain-Health

2025

Inventory Pro

Python, Django, MySQL

A web app for tracking products, suppliers and stock across several locations, with reports in one click.

github.com/mugabosam/Inventory

Skills

Languages	Python, TypeScript, JavaScript, PHP, SQL, Dart, Solidity, HTML & CSS
Backend	NestJS, Django, Prisma, PostgreSQL, MySQL, REST APIs & OpenAPI, Role-based access control
AI / ML	scikit-learn, pandas, Streamlit
Frontend & mobile	Next.js & React, Tailwind CSS, Flutter, Riverpod
Tooling & security	Git & GitHub, GitHub Actions, Docker, Automated testing, Applied cryptography

Education

2023 – 2027 (expected)

Bachelor's degree, Information Technology

University of Rwanda, College of Science and Technology

2019 – 2022

Advanced Level (A2) Certificate

Kiziguro Secondary School (Mathematics, Physics and Computer Science)

Training and certificates

2023

Cisco Networking Academy

Introduction to Data Science, IT Essentials, Computer Hardware Basics, Introduction to Cybersecurity

2023

CyberTechAfrica 2023 Hackathon

Cryptography, network security and reverse engineering challenges

TechGrw AI Solutions

AI solutions training with a focus on cybersecurity and data analytics

Languages

Kinyarwanda (native), English (fluent)