Philip Oyuga

ML ENGINEER

Electronics and Computer Engineering graduate, currently working as an ML & Cybersecurity Engineer. I am most at home close to the hardware and on the security side of a system: I have written firmware for STM32 and Raspberry Pi Pico, pentested a production fintech product, and finished runner-up in two CTF competitions. I am also filing a patent on a multi-agent data-extraction architecture. I enjoy stubborn problems and the people who like solving them, and my main interests are embedded systems and cybersecurity.

philipoyuga14@gmail.com · 0736551322 · Juja, Kenya · shawn-phy.github.io · github.com/shawn_phy

EDUCATION

BSc Electronics & Computer Engineering
JKUAT
10/2020 – 06/2025 · Juja, Kenya

High School
Maranda High School
02/2016 – 11/2019 · Siaya, Kenya

CERTIFICATES

International Mathematics Olympiad
Certificate of participation · 07/2018

Quantum Machine Learning
IBM certification(Advanced level) · 06/2025

SKILLS

Firmware Engineering
Networking
Bash scripting
Cloud Computing
Cybersecurity
Technical Writing
Machine learning

LANGUAGES

English
Native or Bilingual Proficiency

Kiswahili
Full Professional Proficiency

WORK EXPERIENCE

ML & Cybersecurity Engineer · Neverest Limited
09/2025 – Present · Nairobi

- Writing a multi-agent workflow for extracting healthcare facilities from state licensing websites.
- Pentesting the flagship fintech product.
- Writing automation tests for the scraper; filing a patent on the novel architecture.
- Designing an automated marketing workflow with autonomous AI agents.
- Architecting an integrated monitoring setup for all AI workloads (OpenTelemetry).

Co-founder · Atomio Technologies
2024 – 01/2026

- Co-founded a software company building construction management software.
- Designed and delivered websites for clients.
- Wrote backend code in C# and configured the servers it ran on.
- Prepared weekly progress logs and presented them to clients.

Ref: Lewis Kimaru – +254 799 456 976

Junior Engineer · Wezeshanet Technologies
08/2024 – 04/2025

- Migrated monolithic PHP architecture to TypeScript microservices.
- Wrote a RouterOS Python wrapper for payment gateway interactions.
- Produced technical documentation for the new platform.

Ref: Joash Agesa – +254 705 344 018

Software Developer Intern · MCB Technologies
05/2024 – 07/2024

- Built a multithreaded Python parser for financial statements.
- Developed an end-to-end event management system in C# with a GraphQL API.
- Designed a React + Material UI user dashboard.
- Wrote an observability wrapper for web flows.

Ref: Brian Etemesi – +254 701 561 155

INTERESTS

Chess · CTF Competitions · DIY Projects · Cycling · Music Production

ACHIEVEMENTS

2nd **International Rungu CTF**
1st Runners Up · Bastion Technologies · 2022

2nd **National Cyberise CTF**
1st Runners Up · KCFA · 2022

3rd **National Science Fair**
3rd Place · Regional Division · 2018

PERSONAL PROJECTS

Synthetic dataset generation using qGANs
06/2026–08/2026

- Combining Classical Autoencoders with variational Quantum circuits for Image Generation

Smart Agriculture Final Year Project
01–05/2025

- Designed & constructed an AI-enabled smart greenhouse(STM32Cube.AI) in a team of five.

Tennis Match Live Analysis
03/2024–04/2025

- Realtime analysis of tennis matches using OpenCV and TensorFlow. Deployed on the Jetson Nano.

Autonomous Vehicle
02–04/2024

- Obstacle-avoiding, target-locating 4WD robot on Raspberry Pi Pico.

RoboDojo Competition
06–08/2024

- Designed a robot that can navigate a maze and collect objects in a team of four.

Smart Home System
09–12/2023

- Custom PCB and firmware for a smart home system in a team of four.

Docker from Scratch in C
08–12/2023

- I Implemented containers via Linux pipes, child processes and syscalls.

I2C Driver – STM32F429ZI
07–10/2023

- Wrote Firmware for vl53l0x Time-of-Flight sensor running on mbed OS.

Notepad Exploit in Rust
05/2024–Present

- Inspired by John Hammond; WIP exploit written in Rust.

Audio Plugin for FL Studio
04/2022–Present

- Designed a Filter plugin using the JUCE framework (WIP).

Media Server from 24-yr-old PC
12/2021–01/2022

- Repurposed legacy hardware into an Emby media server.

SeAn – WhatsApp Sentiment Analysis
06–08/2022

- Sentiment analysis tool for WhatsApp chat exports.