



MURERWA DANIEL

Electrical and Electronic Engineer

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 14.10.1999
 Single
 Kenya

PROFILE

As a recent Electrical and Electronic Engineering graduate, I bring hands-on experience in embedded systems, hardware development, and data science. I'm proficient in Python, C/C++, and have worked on ESP32, Arduino, and Raspberry Pi platforms, integrating sensors and performing real-time debugging. My skills include data acquisition, analysis, and visualization using Python (Pandas, NumPy, Matplotlib) and SQL, enabling insights from IoT and embedded systems. I also have experience with PCB design (KiCad, Proteus, Eagle), wireless communication (UART, SPI, I2C), and basic CAD modeling for prototyping. Comfortable in Linux environments, I'm a quick learner and problem-solver, eager to apply my technical and analytical skills to innovative projects.

CAREER

June 2025 – Present

CENTRE FOR DESIGN, INNOVATION & ENGINEERING – *Kenyatta University, Nairobi, Kenya*

Embedded Systems & Medical Device Prototyping Trainee

Participated in a medical device design boot-camp, focusing on embedded systems, prototyping, and clinical needs-finding. Designed and built functional embedded systems for medical applications using Arduino, involving soldering, sensor integration, and microcontroller programming. Utilized TinkerCAD, Proteus, Arduino IDE, and Prusa Slicer for prototype design and simulation. Engaged in clinical immersion at hospitals to validate design requirements and collaborated on a low-fidelity medical device prototype.

May 2024 – May 2025

NAKUJA ROCKETRY PROJECT – *Juja, Kenya*

Electrical Engineering Intern

Designed and implemented an electrical ignition circuit for rocket motor launches, ensuring safety and precision.

Integrated onboard sensors (temperature, pressure, accelerometers) for real-time flight data.

Developed embedded communication interfaces (UART, SPI) between microcontrollers and ground control systems.

Assisted in PCB prototyping and debugging for telemetry and power distribution. Managed component sourcing and budgeting.

Collaborated with multidisciplinary teams on system integration and testing.

June 2023 – Aug 2023

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT – *Nairobi, Kenya*

Electrical Engineering Intern

Designed electrical layout plans (lighting, socket, power systems) for public buildings using AutoCAD Electrical.

Contributed to emergency lighting and fire alarm system designs.

Conducted site visits to assess contractor compliance and reviewed technical drawings.

May 2022 – Aug 2022

KENYA POWER & LIGHTING COMPANY – *Thika, Kenya*

Electrical Engineering Intern

Assisted in residential and commercial electrical installation and maintenance. Participated in metering and customer connection inspections for safety and compliance. Supported teams in revenue collection and customer complaint resolution, including inspecting customer power connections for compliance.

EDUCATION

Jan 2025 – Jan 2026

AltShool Africa

Diploma in Data Science

Sep 2019 – May 2025

Jomo Kenyatta University of Agriculture and Technology – Juja, Kenya

Bsc. Electrical and Electronic Engineering

SKILLS

Data analysis



Well acquainted in Microsoft Excel and Python for Data Analysis

Network Design



Highly skilled in using Cisco Packet Tracer for network design

Machine Learning



I have great understanding of neural networks used in deep learning. I have done both audio and image classification using convolutional neural networks

PCB Design



Highly skilled in Designing electronic circuit PCB's. I'm familiar with industrial standard PCB designing softwares like KiCAD, OrCAD, Altium and Proteus
I have also understanding of PCB fabrication and testing

**Embedded System
Design**



Proficient in developing low-power embedded solutions, firmware flashing, and microcontroller bring-up (ESP32, STM32, Arduino, AVR, etc.).

**Hardware Design &
Debugging**



Experienced in analog and digital circuit design, hardware troubleshooting, signal conditioning, and PCB debugging

**CAD & Rapid
Prototyping**



Basic skills in CAD design and 3D printing for mechanical integration and enclosures.

Soft Skills



Fast learner, open-minded, and effective communicator; collaborative team player with leadership capability during project phases.

LANGUAGES

English



Kiswahili



INTERESTS

Taking Photos

Programming in Python and Microcontrollers

Playing Soccer

Reading Books

Circuit Simulations