




 alvynew@gmail.com

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 Nairobi, Kenya

 <https://alvynez.github.io>

TECHNICAL SKILLS

Programming in:

- C & C++
- Dart
- Python

IoT System Development using:

- Raspberry Pi
- AVR Atmega chips

Android apps, iOS apps and web development using Flutter.

Database Design and implementation using:

- SQL (MySQL)
- NoSQL (Firebase)

Engineering Simulations and Design using MATLAB.

PCB design and Through Hole components soldering.

INTERESTS

 Programming

 Internet of Things

 Puzzle games

 Video games

 Cycling

ALVYNE WAMWEA MWANIKI

Electrical Engineering Student

Hard-working, eager-to-learn final-year electrical engineering student. Equipped with experience in the development of IoT devices. Proficient in programming applications for multiple platforms: Windows, Linux, Android and iOS.

EXPERIENCE

UHF Ground Station Implementation

November 2021 - May 2022

- ✓ My undergraduate final year project was to investigate, design, implement and operationalize VHF/UHF ground station for satellite communication.
- ✓ This was a continuation of the NaSPUoN CubeSat project which only made use of non-space-grade components.
- ✓ The project entailed using an ICOM9700 radio to communicate using the UHF band (430-450 MHz) with a nanosatellite bench model.

Gearbox Kenya Internship

July 2021 - October 2021

- ✓ I programmed the main microcontroller of an IoT-enabled Access Control System.
- ✓ The components connected to the main microcontroller included an RFID scanner, ultrasonic sensor, LCD, 4x4 keypad and Wi-Fi module.
- ✓ A fully-functional prototype of the system was implemented and tested.

Nano-Satellite Platform University of Nairobi (NaSPUoN) development

October 2020 - September 2021

- ✓ NaSPUoN is a CubeSat bench-model developed in UoN in partnership with KSA (Kenya Space Agency). KSA offered a grant of KShs 1 million.
- ✓ I was the Electrical team leader.
- ✓ I worked on On-Board Computer and Communications subsystem.
- ✓ I programmed, implemented and tested the satellite communication software as well as Ground station software (Windows form Application).
- ✓ In November 2021, NaSPUoN was ranked best on merit compared to CubeSats from four other Kenyan universities that were also offered a similar grant by KSA.

Android App Development (Hearts)

April 2020 - October 2020

- ✓ During Covid lockdown, I learnt programming in Flutter for Android and iOS apps from online tutorials.
- ✓ I programmed a hearts game and released it in Google Play Store ([Hearts MultiPlayer - Warmware Labs](#)).

ACHIEVEMENTS AND CERTIFICATES

Hands-on Education Program for Technical Advancement (HEPTA SAT)

October 2019

IEEEExtreme 14.0 Programming Competition (Team: TitanZ)

October 2020

Finishing Position: 1st in Kenya, 33rd in region R8, 119th globally

University of Nairobi Certificate of Merit for Best Second Year Male Student in Electrical and Information Engineering in the 2018/2019 Academic Year

July 2021

IEEEExtreme 15.0 Programming Competition (Team: NameOfTeam)

October 2021

Finishing Position: 1st in Kenya, 32nd in region R8, 103rd globally

Huawei Certified Specialist Associate (HCSA):

- ✓ Intelligent Collaboration
- ✓ IP Network Sales Specialist
- ✓ Storage
- ✓ Transmission & Access Sales Specialist

(Cert No. 0301121441808458971337778)

(Cert ID: 030120001441808458971337428)

(Cert No. 030120202441808458971337777)

(Cert ID: 030120101441808458971337776)

November 2021

Valid Through: November 22, 2023

University of Nairobi Certificate of Merit for Best Fourth Year Male Student in Electrical and Information Engineering in the 2020/2021 Academic Year

May 2022

EDUCATION

Awaiting Graduation: B. Sc. In Electrical and Electronics Engineering

University of Nairobi

2017 – 2022

Completed Studies May 2022

KCSE High School Certificate

Strathmore School

2013 – 2016

GPA: 3.97/4.0

Mean Grade: A- (80)

REFEREES

Dr. Raymond Mutugi Kiruki (NaSPUoN Project Manager)

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Mr. Ephantus Ngugi (Gearbox Kenya Internship Supervisor)

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Mr. Bill Mbogho (Character Referee)

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