

Osodo Rodney David

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I am a technology enthusiast, with a burning interest in the goLang industry. I have a newfound love for development of distributed cloud systems and APIs based on microservice architecture. I am currently pursuing my dream in Mechatronics Engineering at Jomo Kenyatta University of Agriculture and Technology with hope of becoming a better robotic engineer and researcher particularly in Kenya where the field is currently not robust.

TECHNICAL SKILLS

Languages: Go, Rust, Python, C/C++, SQL (Postgres), Matlab, HTML/CSS

Frameworks: Django, Flask, Go-Kit, PlatformIO, SciKit-Learn

Developer Tools: Git, Docker, TravisCI, Google Cloud Platform, VS Code, Visual Studio, PyCharm, CLion

Technologies: Distributed systems, microservice architecture Domain Driven Development

EDUCATION

IBM Summer School

Quantum Computing, Minor in Machine Learning

Online

Sep. 2020 and Sep 2021

Jomo Kenyatta University of Agriculture and Technology

Bachelor of Science in Mechatronics Engineering

Nairobi, KE

Sep. 2017 – Dec 2022

- Designed wearable device that helps the visually challenged people to accomplish their day to day task
- Designing and fabricating a prototype mobile platform with holonomic and omnidirectional motion

EXPERIENCE

Software Engineer

Juja, Nairobi

July 2019 – Present

Qualislabs, KE

- I worked with hardware and firmware engineers to build our API responsible for image processing.
- I was able to set up a Kubernetes cluster to handle all our API calls since loading the models into memory would take up more compute resources. This was to ensure our customer experiences lower latency periods.
- Implemented our three models, Image captioning, Optical character recognition and Emotion detection.

Rocket Scientist Intern

Jomo Kenyatta University of Agriculture and Technology

February 2021 – May 2021

Nakuja Project, KE

- I was able to do a comprehensive design of the rocket sub-system, Avionics.
- Implemented Kalman filter using sensor fusion to detect apogee.
- I was able to participate in the SRI conference and submitted a technical paper

PROJECTS

Open source Contributor @ Mainflux | *Golang, Go-Kit, Docker*

January 2020 – Present

- Developed mainflux application ui
- Moved backend broker from NATS either NATS, RabbitMQ or Kafka
- Built Python SDK

12 factor IoT Application | *Docker, Github Actions, Platform IO, Makefile*

September 2021 – October 2021

- Implemented backend system using Docker to visualize and analyse the data
- Implemented security to MQTTs by using Authentication and Authorization mechanisms

Variational Quantum Classifier | *Python, Quantum Machine Learning*

November 2020 – January 2021

- Developed a Quantum Machine Learning Classifier
- Carried out data exploration and cleaning of Heart attack data
- Generalised the model with wine and iris datasets

TECHNICAL EXPERIENCE

- Submitted a paper to the SRI conference held at JKUAT
- Won the JKUAT Tech Expo 10.0
- Got called to the IBM Quantum Africa Hackathon
- Got accepted to the Quantum Open Source Foundation program
- Regional Finalist at the IBM Call for Code Challenge