

Osodo Rodney David

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I am a technology enthusiast, with a burning interest in the quantum industry. I have a newfound love for Quantum Machine Learning triggered by my intuition to make our future better. I am currently pursuing my dream in Mechatronics Engineering at Jomo Kenyatta University of Agriculture and Technology with hope of becoming a better engineer and researcher particularly in Kenya where the field is currently not robust.

TECHNICAL SKILLS

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

Frameworks: Qiskit, Cirq, Django, Tensorflow, Sklearn, Numpy

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

EDUCATION

IBM Summer School

Online

Quantum Computing, Minor in Machine Learning

Sep. 2020 and Sep 2021

- Designing your implementation of a variational quantum eigensolver (VQE) algorithm that simulates the ground state energy of the Lithium Hydride (LiH) molecule.

Jomo Kenyatta University of Agriculture and Technology

Nairobi, KE

Bachelor of Science in Mechatronics Engineering

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

July 2019 – Present

Juja, Nairobi

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.
- Implemented our three models, Image captioning, Optical character recognition and Emotion detection.

Rocket Scientist Intern

February 2021 – May 2021

Jomo Kenyatta University of Agriculture and Technology

Nakuja Project, KE

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

PROJECTS

Computer Vision AI Saturday | *Python, Deep learning, Docker, Jupyter, OpenCV, Git* October 2019 – Present

- Developed OpenCV models to do facial recognition.
- Developed Machine Learning model to do image classification.

12 factor IoT Application | *Docker, Github Actions, Platform IO, Makefile* September 2021 – October 2021

- Developed hardware Application to send temperature and Humidity data.
- Implemented backend system using Docker to visualize and analyse the data.
- Ensure my application followed the 12 Factor Application design paradigm.

Variational Quantum Classifier | *Python, Jupyter, Machine Learning, Quantum* November 2020 – January 2021

- Developed a Quantum Machine Learning Classifier to classify the probability of having a heart attack.
- Data exploration and clearing of Heart attack data.
- Generalised the model with other 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 Winner at the IBM Call for Code Challenge