Osodo Rodney David

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I am a technology enthusiast, with a burning interest in the electronics industry. I have a newfound love for sustainable energy triggered by my intuition to make our future better. I am currently pursuing my dream in Mechatronics Engineering with the hope of becoming a better doctoral researcher particularly in Kenya where the field is currently not robust. I am currently working on the design and fabrication of a prototype mobile platform with holonomic and omnidirectional motion and have previously developed the ujuzi device to monitor your energy consumption.

Technical Skills

Languages: Assembly, Rust, Python, C/C++, SQL (Postgres), Matlab, HTML/CSS
Design Tools: Autodesk Inventor, Autodesk CFD, Proteus, EasyEDA, KiCAD, Atmel Studio
Developer Tools: Git, Docker, Travis-CI, Google Cloud Platform, Visual Studio, PyCharm, CLion
Technologies: CNC Machining, Milling, Welding, 3D printing, PCB Etching, Embedded Systems, Artificial Intelligence

Education

IBM Summer School Online
Quantum Computing, Minor in Machine Learning *Sep. 2020 and Sep 2021*

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

Mechanical Engineer Intern September 2019 – October 2019
Rift Valley Machineries Service, Nairobi *Industrial Area, KE*

- I was able to learn Generator installations, servicing and maintaining generators, pump installations, posho mill assembly, farm machinery assembly and assembly and operation of construction machinery

Projects

Design and fabrication of a holonomic and omnidirectional mobile platform May 2022 – Present

- Mechanical chassis and platform design
- Independent control of motor rotational and translational motion

Design of a Manual Shearing Machine | *Autodesk Inventor, Autodesk FEA* June 2021 – August 2021

- Carried out a Finite element analysis to determine maximum load

Fabricated a Spool valve | *Autodesk Inventor, Lathe Machine* January 2019 – March 2019

- Machined the spool valve using facing, turning, parting, threading and drilling

Technical Experience

- Submitted a paper to the SRI conference held at JKUAT
- Won the JKUAT Tech Expo 10.0
- Regional Finalist at the IBM Call for Code Challenge