Shawal Mbalire

Electrical and Software Engineering Student

LinkedIn |GitHub

I am an Electrical Engineering student at Makerere University. I am passionate about research and automation. This shapes my interests such as electronics and technology.

Experience

International Telecommunication Union

Generation Connect Youth Envoy   8 months

Arranged internship focused on telecommunications and digital transformation initiatives for youth empowerment across Africa and globally.

- Represented African youth in global telecommunications initiatives,Participated in ITU strategic planning for digital inclusion,Collaborated with international stakeholders on digital divide solutions,Contributed to policy development for youth digital empowerment

IoT-ra (Internet of Things - Research & Applications) Lab

Embedded System Intern   10 months

Developed embedded systems solutions and IoT applications, working on cutting-edge research projects in smart technology and automation.

- Designed and implemented 5+ IoT prototype systems,Developed automated monitoring solutions for agricultural applications,Created smart home automation systems using wireless sensors,Contributed to research publications on IoT applications in developing countries

netLabs!UG

Engineering Intern, E-waste Recycling Project   1 year 11 months

Part of a team working on repurposing e-waste to create functional computers for underprivileged communities. Responsible for woodworking and operating systems installation and configuration.

- Refurbished 100+ computers from electronic waste,Provided functional computers to 20+ schools in underserved communities,Reduced electronic waste by implementing systematic recycling processes,Trained community members in basic computer maintenance and repair

SkillsandCertifications

Arduino, Arduino Programming, C/C++, Computer Assembly, Computer Repair, Data Analysis, Digital Transformation, E-mobility, Electric Vehicles, Environmental Technology, Event Management, Hardware Diagnostics, Hardware Refurbishment, International Relations, IoT Protocols, Leadership, Linux Administration, MATLAB, OS Installation, Project Management, Python, Raspberry Pi, Research, Research Methods, Sensor Integration, Signal Processing, Software Development, Solar Technology, Sustainability, Sustainability Solutions, Sustainable Transportation, Team Management, Technical Training, Telecommunications, Telecommunications Policy, Troubleshooting, Windows Installation, Wireless Communication, Woodworking, Youth Empowerment