

# KANGWA MUKUKA

+260 964475128 | kangwa1mukuka@cs.unza.zm | linkedin.com/in/kmukuka | github.com/kangwa623

## EDUCATION

**BSc. Computer Science (Major: Computer Systems Engineering)** Feb 2022 - Oct 2025  
University of Zambia (UNZA) | Lusaka, ZM

*Honours:* Undergraduate Student Innovator of the Year Award (2025), 1st place: UNZA Student Innovation Challenge (2025), AFRICAI Mentorship Award (2025), 3rd place: IEEE IAS IPCSD Engineering Design Contest Africa (2024), 3rd place: Zambia@60 National ICT Hackathon (2024).

## COURSEWORK

Computer Programming, Numerical Analysis, Algorithms and Complexity, Fundamentals of Artificial Intelligence, Wireless and Mobile Communication Networks, Cloud and High Performance Computing, Data Mining and Warehousing.

## SKILLS

**Technical Skills:** Python, JavaScript, Java, C++, Flask, React, CSS, Bootstrap, MySQL.  
**Tools:** Git, GitHub, Firebase, Google Colab.  
**Soft Skills:** Research Methods, Requirements gathering, Teamwork, Collaboration, Troubleshooting, Public speaking.

## EXPERIENCE

**Undergraduate Research Assistant** Mar 2025 - Present  
**DataLab Research Group** | Lusaka, ZM

- Developing software solutions to enhance radiology workflows at the Cancer Diseases Hospital (CDH) in Zambia.
- Researching the use of Vision Language Models to semi-automate cervical cancer report generation at CDH.

**Web Developer** Feb 2024 - Oct 2024

**Engineering Institution of Zambia (EIZ) UNZA Student Chapter** | Lusaka, ZM

- Developed the first official website for the Student Chapter at the University of Zambia.

**Chairperson** Dec 2024 - Nov 2025

**Vice-Chairperson** Dec 2023 - Dec 2024

**Institute of Electrical and Electronics Engineers (IEEE) UNZA Student Branch** | Lusaka, ZM

- Spearheaded and oversaw technical activities for students interested in STEM by facilitating educational talks, industrial trips, project proposals and leading the Student Branch Executive Team.

**Technical Lead** Sep 2023 - Jun 2024

**Google Developer Student Club (GDSC) UNZA Student Chapter** | Lusaka, ZM

- Guided the technical aspects of the club's projects and initiatives, ensuring their successful implementation at the University of Zambia Student Chapter.

## FEATURED PROJECTS

**Enterprise Medical Imaging in Zambia (EMI x Z)** [emi.org.zm] Mar 2025 - Present

- This project seeks to investigate the challenges resulting from the shortage of radiologists and to investigate the feasibility of implementing efficient and effective medical imaging workflows using enterprise imaging techniques.

**ReviZa** [reviza.info] Aug 2024 - Mar 2025

- ReviZa is a mobile/web application designed to facilitate the sharing and access of past papers and other academic resources specifically for university students.

**EIZ-UNZA-SC Website** [eiz-unza.onrender.com] Jan 2024 - Jun 2024

- Gathered requirements and developed the official website for the University of Zambia Student Chapter

**POLYGON: Clinic Database & Information Management System** Apr 2023 - Jun 2023

- A full-stack web app that allows a user to add, delete and edit records of the database from the front-end UI.

## PUBLICATIONS

**Design and Prototyping of a Remote Livestock Monitoring Device for Low-Resource Settings**

- M. M. Makumba, J. C. Moya, D. Banda and K. E. Mukuka, IEEE International Humanitarian Technology Conference (IHTC), Edmonton, AB, Canada, 2025, pp. 44-48, doi: 10.1109/IHTC65087.2025.11216306.

**Design of a Low-Cost Smart Solar-Powered Irrigation System**

- K. M. Makasa and K. E. Mukuka, IEEE PES/IAS PowerAfrica Conference (PAC), Johannesburg, South Africa, 2024, pp. 1-5, doi: 10.1109/PowerAfrica61624.2024.10759498.

## INVOLVEMENT

Member: Dept. Computing and Informatics Innovation Hub, UNZA (2025) | Finalist: IEEE Duino Hardware Design Contest EMEA (2024) | Student Ambassador: IEEE Xtreme 17.0 (2023) | 2nd place: AICCRA Lightning Design Jam (2022).