

Nduvho Edward Ramashia

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Github | LinkedIn

Professional Summary

Results-driven STEM enthusiast with a strong foundation in electrical engineering, information engineering, and programming. Committed to continuous learning and innovation, I bring a blend of technical expertise and collaborative problem-solving. Seeking to contribute to dynamic projects in the field with a focus on emerging technologies and a proven track record in successful software development projects.

Technical Skills

- Programming Languages:** C++, Python, Matlab, AVR Assembly, Javascript, “HTML/CSS”.
- Software Tools:** Matlab, LTspice, Linux (various distros and CLI operations), LOGO Soft Comfort, VS Code, Autodesk Eagle and Similar CAD Software, Git Version Control, Microsoft Excel.
- Hardware Platforms:** Atmel AVR, ESP32, and STM32 Micro-controller families, LOGO PLC.

Experience

Assistant to the Services Manager, IMT Probe Kuruman Auto

December 2024 – January 2024

- Analyzing the services data
- Developing better data capturing and analysis systems
- Identifying the department's utilizations
- Developing cost serving systems through metrics such as MTTR, MTBF and such

Junior Electrical Engineer (Part-time), iMining (Pty) Ltd

February 2024 - Current

- PCB designs
- Firmware development
- Electronics equipment testing & assembly
- General engineering lab administration

Student Electrical Engineer, iMining (Pty) Ltd

December 2023 - January 2024

- Assisting engineers with Schematic & PCB designs
- Contributed in firmware development
- Electronics equipment testing & assembly
- General engineering lab administration

Undergraduate Research Assistant, Wits of School of Electrical and Information Engineering

June - July 2023

- Assisted in implementing hands-on projects focused on controlled LED lighting for mosquito breeding, contributing to advancements in mosquito control strategies.
- Conducted experiments and meticulously collected data, showcasing proficiency in laboratory techniques and scientific methodologies.
- Maintained rigorous adherence to lab safety procedures, ensuring a secure and conducive working environment for all team members.

- Provided valuable technical support in the maintenance and repair of laboratory equipment, enhancing overall operational efficiency.

Volunteer, Data for Municipal Infrastructure Assets

June 2021 – August 2021

- Engaged in data retrieval and processing activities, contributing to the comprehensive assessment of roads-rivers crossings.
- Identified the state of infrastructure elements and assigned repair priorities based on the assessment, aiding in efficient resource allocation for maintenance and improvement.

Teaching Assistant, University of the Witwatersrand

Feb 2021 – June 2021

- Facilitated comprehension of course concepts by providing assistance to both groups and individuals, particularly focusing on Microprocessors.
- Guided students in the setup of the course software stack and offered support in debugging (Assembly) code, ensuring a smoother learning experience.

Lecturer Assistant, Wits – School of Electrical and Information Eng.

Nov 2020 - Feb 2021

- Conducted testing and analysis of newly proposed micro-controllers intended for future use by the school, contributing to the enhancement of technological resources.
- Implemented and tested upcoming year labs on the proposed micro-controllers, ensuring their effectiveness in the educational curriculum.
- Thoroughly observed and tested lab instructions for errors, implementability, and time practicality, contributing to the refinement of teaching materials and methodologies.

Education

Bsc(Hon) in Electrical and Information Engineering,

University of the Witwatersrand, Johannesburg

4th Year

Expected Grad. Date: 2025

Achievements and Awards

- Triumphs in High-Performance Computing (HPC) and Data Science Competitions:
 - ✓ Secured a coveted spot on the CHPC team for ISC22-SCC in 2022.
 - ✓ Distinguished with a stellar 2nd place out of 4 finalists in the CHPC-SCC competition in 2021.
 - ✓ Showcased exceptional skills, clinching an impressive 2nd place out of 9 participants in the spirited DIRISA DATATHON of 2020.

Leadership and Extracurricular Activities

- Music Enthusiast:
 - Proficient in playing electric piano and bass guitar.
 - Actively involved in musical collaborations.
- Gaming Enthusiast:
 - Engaged in gaming communities and online tournaments.
 - Demonstrated strategic thinking and teamwork through gaming experiences.

Professional Memberships

- Student Member, South African Institute of Electrical Engineers (SAIEE)