

# Nduvho Edward Ramashia

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## 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.
- **Hardware Platforms:** Atmel AVR, ESP32, and STM32 Micro-controller families, LOGO PLC.

## Experience

### 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

**4<sup>th</sup> Year**

**Expected Grad. Date: 2024**

## **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.

## **Certifications**

The Cybersecurity Threat Landscape, LinkedIn Learning, 2023

## **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.