# Halatedzi Nedombeloni

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### **EDUCATION**

University of Johannesburg, Johannesburg, Gauteng

**Expected Graduation: March 2023** 

Master of Engineering (MEng), Electrical and Electronic Engineering

University of Johannesburg, Johannesburg, Gauteng

Feb 2018 - Nov 2021

Bachelor of Engineering (BEng), Electrical and Electronic Engineering

#### **EXPERIENCE**

University of Johannesburg, Johannesburg, Gauteng, Android App developer Jun 2020 - Nov 2021

- Developed an E-learning android application for a University of Johannesburg community outreach program.
- Collaborated with international curriculum facilitators (Bayoomhub) to set the aesthetic standards for the application.
- Responsible for ensuring the quality of the application before and after distribution to students.

Nedbank, Sandton, Gauteng, Student Vacation Work

Jun 2019 - Nov 2021

- Provided advice from a youthful perspective on certain products provided by the bank.
- Responsible for designing work procedures that would improve productivity and efficiency within the bank.
- Brought forth automation for processes that required manual spreadsheet processing.

## LANGUAGES

**Tshivenda**, Native Speaker

English, Highly Proficient

Afrikaans, Proficient

## TECHNICAL SKILLS

**Programming Skills:** C/C++, Python3, Java, C#, HTML5 ,CSS, JavaScript(ES6), Assembly (x86-64) **Electronic Design Skills:** PCB, RF and Embedded design skills. Surveillance Equipment Installation.

## TECHNICAL PROJECTS

# Computer Vision Fugitive Detection System, final year project

Feb 2021 - Nov 2021

- Built a face detection software and hardware system in python3 that can detect faces of interest(fugitives) in large crowds and alert concerned individuals (law enforcement).
- Designed for large scale use, country wide
- Made use of high resolution cameras and network apparatus such as switches and fiber optic cables.

### Serious Game for Telecommunications Application, Master's Project PRESENT

- Developing a Serious Game to teach Hamming Codes to students in Unity(C#).
- Makes use of educational data mining techniques to determine learning rates in observed student performance.

# Automated Temperature Measurement System Through IoT, Doornfontein Mine Project PRESENT

- Installed multiple temperature and humidity sensors in a mine in Doornfontein.
- Connected these sensors through the internet to an Internet of Things database (Thingspeak).
- Developed a dashboard website in HTML5, CSS and JavaScript to visualize in real time the temperature and humidity of these locations.
- Used an API to send SMS' to the mine administrators phone when the atmospheric conditions exceed a certain threshold.

#### REFERENCES

# **University of Johannesburg**

Dr Reolyn Heymann

Project Manager

University of Johannesburg Community Engagement Projects

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Professor Lynn Illon

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Bayoom Hub

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