Sakhile Siyabonga Ntombela

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PROFESSIONAL SUMMARY

I am a recent Graduate with a Bachelor of Engineering Technology in Computer Engineering. Passionate about Technology and innovation. I have developed a strong foundation in computer Systems, Programming, and problem solving. My academic journey has equipped me with the skills needed to thrive in the tech-related roles, and I am eager to apply my knowledge in real-world projects. With a keen interest in emerging technologies, I am looking forward to contributing to the Tech industry while continuously growing and expanding my expertise

EDUCATION

Cape Peninsula University of Technology   Feb 2022 - Nov 2024

Bachelor of Engineering Technology in Computer Engineering

TECHNICAL SKILLS

Programming Languages: Python (Pandas, Numpy, Matplotlib), C/C++, Java, JavaScript, MySQL

Frameworks & Libraries: Ngrok, SQL Workbench, TensorFlow/PyTorch,

Microcontrollers & Embedded Systems: Circuit Design, Arduino, ESP32, Sensor integration and programming

Simulation & Analysis: Tinkercad, Multisim, Proteus, oscilloscope signal analysis

EXPERIENCE

Department of Education   Nov 2021 – Jan 2022

General School Assistant

- Provided tutoring support in academic subjects, helping students improve their understanding and performance
- Assisted with the coordination and execution of various Sports activities and events for Students
- worked closely with teachers and school staff to ensure a smooth operation of school programs

PROJECTS

Smart Greenhouse with integrated AI   Jan 2024 – Nov 2024

- Developed an AI-powered smart greenhouse system with real-time automation using C++, combining plant health analysis and environmental sensor feedback to maintain optimal conditions.
- Integrated sensors like DHT11 (temperature and humidity) and a light sensor for environmental monitoring and automated control of fans, lights, and a water pump using Arduino.
- Developed a deep learning model for tomato disease detection using Python (with Libraries like TensorFlow &Keras and deployed an interactive Python interface with ngrok for remote access.

Solar Inverter System with Automated Power Switching   May 2024 – Sep 2024

- Designed and simulated a solar inverter system with Arduino, enabling seamless switching between solar and municipal power sources using relays on a Breadboard.
- Created a Tinkercad simulation and analyzed sine wave signals for phase shift, amplitude, and frequency comparisons via an oscilloscope.

REFERENCES

Available Upon Request