



Thulasizwe Phetha

ELECTRONIC ENGINEERING
STUDENT

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📍 Durban, KwaZulu-Natal
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📅 28/08/2001

SUMMARY

I am a final-year Electronic Engineering student passionate about innovation and practical problem-solving. My skills include circuit design, signal processing, microcontroller programming, and embedded systems, with hands-on experience in PCB design, prototyping, and programming in C/C++, Python, and MATLAB. I thrive in collaborative environments, tackling complex engineering challenges with analytical and creative approaches. I am seeking graduate programs, vacation work, or internships to apply my knowledge and further develop my expertise in this dynamic field.

EXPERIENCE

VOLUNTEER TUTOR

01/2020 - Present

FUNDA THE AFTER-SCHOOL PROGRAM ↗

PROVIDING ONE-ON-ONE SUPPORT IN MATH AND PHYSICS TO HIGH SCHOOL STUDENTS, HELPING THEM GRASP CHALLENGING CONCEPTS AND BUILD ACADEMIC CONFIDENCE.

LAB DEMONSTRATOR

08/2025 - 11/2025

University of KwaZulu Natal ↗

- Demonstrator for Field theory, Electrical Principle and Electrical/Electronic Engineering modules.
- Guiding 2nd year students, by ensuring they understand the techniques used as well as following protocol and safety guideline.

Application Engineer-Vacation work

12/2024 - 01/2025

Azoteq ↗

At Azoteq, I tested and debugged ProxSense products, resolving

defects through soldering and firmware adjustments. For example, I fixed calibration issues in sensors, improving accuracy and reducing production delays.

Workshop Training

06/2022 - 07/2022

Tekmation Training Institute ↗

Engineering workshops on Skills and Design learning which included: welding, cutting, tuning and programming.

EDUCATION

ENGINEERING ↗

02/2021 - Present

University of KwaZulu Natal - BSc Electronic engineering

Science

01/2016 - 12/2020

Siyanda Secondary School - Matric

CERTIFICATES

MATLAB Machine Learning

MATLAB

01/2026 - Present

Skills:

- Machine Learning Algorithms.
- Data Analysis
- Predictive Modeling
- MATLAB Programming

Core Signal Processing Techniques in MATLAB ↗

MATLAB

12/2025 - Present

Skills:

- Digital Signal Processing
- Digital Filters Design
- Spectral Analysis

Altium Education PCB Basic Design

Altium

12/2025 - Present

Credential ID: cert_qxjdyln4

Skills:

- Printed Circuit Board (PCB) Design.
- Electronics & Manufacturing Awareness

Web Development Fundamentals ↗

IBM

07/2025 - Present

Skills:

- HTML
- CSS
- JavaScript
- Front-End & Back-End Development

JavaScript Essentials 1 ↗

Cisco Networking Academy

07/2025 - Present

Skills:

- JavaScript Programming
- Data Type
- Control Structures

Foundational C# with Microsoft ↗

freeCodeCamp

07/2025 - Present

Credential ID: fcc-570dd578-d5c6-4d2b-bfef-79b924813763-fcswm

Simulink Onramp

MATLAB

01/2025 - Present

Skills:

- Control Systems Design
- System Modeling Simulation
- Simulink

Java Programming ↗

Great Learning Academy

08/2022 - Present

SKILLS

Time Management	Advanced	Hardware Debugging & Testing	Advanced
Teaching & Mentoring	Advanced	Computer Vision (OpenCV)	Advanced
Technical Documentation	Advanced	IoT Systems	Advanced
Teamwork & Collaboration	Advanced	MATLAB	Advanced
Problem Solving	Advanced	Microcontroller Programming	Advanced
C#		PCB Design & Soldering	Advanced
SQL	Intermediate	Electronic Circuit Design	Advanced
HTML / CSS	Advanced	Python Programming	Advanced
JavaScript	Intermediate	C++	Advanced
Signal Processing	Intermediate		

LANGUAGES

English	Fluent	Zulu	Native
Xhosa	Fluent		