



Thulasizwe Phetha

ELECTRONIC ENGINEERING
STUDENT

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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
FUNDAMENTAL 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	01/2026 - Present
MATLAB	
Skills:	
<ul style="list-style-type: none">• Machine Learning Algorithms.• Data Analysis• Predictive Modeling• MATLAB Programming	
Core Signal Processing Techniques in MATLAB ↗	12/2025 - Present
MATLAB	
Skills:	
<ul style="list-style-type: none">• Digital Signal Processing• Digital Filters Design• Spectral Analysis	
Altium Education PCB Basic Design	12/2025 - Present
Altium	
Credential ID: cert_qxjdyln4	
Skills:	
<ul style="list-style-type: none">• Printed Circuit Board (PCB) Design.• Electronics & Manufacturing Awareness	
Web Development Fundamentals ↗	07/2025 - Present
IBM	
Skills:	
<ul style="list-style-type: none">• HTML• CSS• JavaScript• Front-End & Back-End Development	
JavaScript Essentials 1 ↗	07/2025 - Present
Cisco Networking Academy	
Skills:	
<ul style="list-style-type: none">• JavaScript Programming• Data Type• Control Structures	
Foundational C# with Microsoft ↗	07/2025 - Present
freeCodeCamp	
Credential ID: fcc-570dd578-d5c6-4d2b-bfef-79b924813763-fcswm	
Simulink Onramp	01/2025 - Present
MATLAB	
Skills:	
<ul style="list-style-type: none">• Control Systems Design• System Modeling Simulation• Simulink	
Java Programming ↗	08/2022 - Present
Great Learning Academy	

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		