# Thatohatsi Motlhamme

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### **OVERVIEW**

Motivated and detail-oriented individual with practical experience in electrical and mechanical engineering. Skilled in programming, circuit design, control systems, machine learning, and technical problem-solving.

# **EDUCATION**

#### UNIVERSITY OF CAPE TOWN

2021-2024

Programme: BSc Eng. in Mechatronics | Specialisation: Mechatronics

- First-Class Honours (Qualification GPA: 79.33%)
- Dean's List Academic Achievement Award (2021-2024)
- Received the Kopano (2021) and Woolsack Residence (2023) Top Achiever Awards for outstanding academic performance within the Engineering and Built Environment Faculty
- Peralex Electronics Prize for achieving the top position in Embedded Systems II in 2023
- Served as a tutor for Embedded Systems I and Embedded Systems II in 2024

#### ROOSEVELT HIGH SCHOOL

2016-2020

- Academic Top Ten (2016-2020) and Academic Full Colours (2019, 2020)
- Second highest academic average at graduation
- Engaged in leadership as part of the Representative Council of Learners in 2020

### PROFESSIONAL EXPERIENCE

#### MIZANA ENGINEERING AND SERVICES (PTY) LTD

June 2022 – August 2022

Vacation Work

Tasks and Skills Developed:

- Conducted diagnostics and repairs on induction motors, including detailed component replacement and performance verification
- Assembled and tested water pumps, and introduced a new in-house testing method for operational integrity
- Developed advanced troubleshooting and problem-solving techniques

#### UNIVERSITY OF CAPE TOWN

June 2023 – July 2023

Electrical Engineer Intern | Vacation Work

Tasks and Skills Developed:

- Analysed and modified a star-delta starter panel to reduce starting current of induction motors
- Enhanced efficiency and corrected errors in control panel schematics using EPLAN software
- Improved problem-solving and troubleshooting skills in electrical systems

# TECHNICAL SKILLS AND COMPETENCIES

Programming: Python, C, Java, HTML, CSS, JavaScript

### **Design and Drafting:**

- Circuit design and analysis using KiCAD, Altium Designer, LTSpice, EPLAN
- 3D mechanical design using SolidWorks

### Proficient in various machine learning algorithms (view GitHub)

**AWS:** Knowledgeable with cloud fundamentals, including storage, networking, and computing concepts through AWS Educate courses