# Safiya Palesa Mia

#### FINAL YEAR MECHATRONIC ENGINEERING STUDENT

I am an enthusiastic student who gets a kick out of solving physical and mathematical problems. I am fuelled by an intrinsic curiosity to learn and an intense desire to make meaningful contributions to the planet and its inhabitants.

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#### **EXPERIENCE**

## **Executive Member | UCT Artificial Intelligence Society** June 2023 - present

Founding member passionate about building a community that collaboratively explores the field of machine learning. Organised successful guest and panel discussions with various industry experts.

#### Secretary General | Engineers Without Borders, UCT Chapter November 2022 - November 2023

Manages administrative duties to ensure the smooth running of the EWB-UCT Chapter. Supports the marketing team in enhancing the chapter's online presence via Instagram. Organised a successful Human-Centred Design (HCD) workshop, promoting innovative problem-solving and teamwork. Led the first-year orientation program, informing incoming students about chapter activities and opportunities.

#### Women Accelerate Program | Bain & Company December 2023

Selected participant in the Bain Women Accelerate program, enhancing leadership and strategic consulting skills through mentorship and intensive training.

### RPA Team Member | Old Mutual Limited July 2023

Gained hands-on experience with automation tools like Bizagi and Blue Prism, learning to integrate data using JSON files and APIs. Attended business planning meetings, gaining insights into aligning RPA solutions with strategic objectives.

#### Junior Electronics Engineer | South African Radio Astronomy Observatory June 2022

Assisted to wire the CNC mini mill. Built, soldered and tested PCB. Received training in the following communication protocols: I2C, SPI, Uart, Usart, as well as shaft encoders. Designed software for I2C LCD, RTC and memory modules and other modules like the line follower and Opto-electronic sensors. Assisted the electronics team by writing a piece of python code that processes text files of data in hexadecimal from a teensy board and produces various scatter plots.

# Course Tutor | UCT Department of Electrical Engineering August 2023 - November 2023

Tutor for the course EEE1007S, Introduction to Electrical Engineering. Course covers basic concepts of power generation, transmission, distribution, nuclear energy and renewable energy, power utilisation in common electric appliances, and basic principles of electric circuits and networks.

## Class Representative | UCT EBE Faculty February 2022 - present

Elected class representative for all BSc(Eng) in Mechatronics students for the full duration of study. Proven track record of effectively voicing student concerns. Committed to enhancing the student experience and promoting academic success.

## **EDUCATION**

## BSc(Engineering) in Mechatronics | University of Cape Town 2022 - present

Activities and societies: Engineers Without Borders, Mechatronics Class Representative, IEEE Society

## **Honours and Awards:**

- Faculty Entrance Scholarship (2022)
- Dean's Merit List (2022)
- Golden Key International Honour Society (2023)
- UCT+ Gold Leadership Award (2023)

Skills: MATLAB · C · Python · STM Microcontroller · Arduino · Soldering · PCB Design

## **VOLUNTEERING**

# Project Team Member | Engineers Without Borders February 2022 - June 2022

Contributed to the 'Playing with Solar' initiative, dedicating weekends to collaborating with Grade 9 students at COSAT High School in Khayelitsha. Taught breadboard electronics skills, soldering techniques, and led the construction of solar-powered powerbanks during weekend sessions.

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