

# IMAAAN SHAIK

MECHATRONICS  
ENGINEERING STUDENT

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📍 Newlands, Cape Town

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## PROFILE

Motivated and ambitious mechatronics engineering student with a passion for robotics, automation, and innovation. Known for a natural aptitude for problem-solving, fast learning, and a strong commitment to success. Possesses excellent communication skills, enabling effective collaboration with peers, professors, and team members alike. Dedicated to driving innovation and excelling in dynamic and technology-driven environments.

## EXPERIENCE

### Jan 2022 - Jan 2022

Vacation Work | 14 Dixon Rd, Mowbray, Cape Town

#### AIZATRON

- Designed and constructed circuits on breadboards, ensuring functionality and adherence to design specifications.
- Utilized circuit modeling platforms like LTSpice to analyze and simulate electrical circuits.
- Supported the engineering team in various tasks, gaining exposure to design processes and practical applications.
- Developed foundational skills in circuit analysis, problem-solving, and attention to detail while working in a collaborative engineering environment.

### Nov 2023 - Dec 2023

Internship | 1 Mediterranean St, Foreshore, Cape Town

#### LIQID Medical

- Designed and prototyped a clasp mechanism for tensile testing of ocular implants used in glaucoma treatment.
- Utilized Autodesk Inventor for 3D modeling and simulation to ensure precision and functionality in the mechanism's design.
- Applied advanced mechanical design principles and engineering knowledge to create a durable and efficient testing tool.
- Collaborated with the engineering team to refine the prototype.
- Developed strong CAD skills, problem-solving abilities, and a practical understanding of mechanical systems and applications.

## EDUCATION

### 2016 - 2020

#### RUSTENBURG GIRLS' HIGH SCHOOL

- National Senior Certificate
- 7 Distinctions

### 2021 - Present

#### UNIVERSITY OF CAPE TOWN

- Final year of BSc. Eng. in Mechatronics Engineering (2025)
- Expected date of graduation: March 2026
- Courses of interest (completed):
  - Embedded Systems
  - Process Control Systems
  - Energy Conversion
  - Machine Learning

## SKILLS

- C programming for Embedded Systems on microcontrollers
- Proficient in MATLAB and Simulink
- Python, Java, C, Assembly languages
- SolidWorks and Autodesk Inventor CAD
- 3D printing and prototyping
- PCB Circuit Design and Debugging
- PLC programming in IEC61131 standard languages
- Controller modelling

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## EXPERIENCE

### Dec 2024 - Dec 2024

Student Volunteer | CTICC, Cape Town

#### IEEE Global Communications Conference

- Contributed to the smooth delivery of a global platform that advances innovation in telecommunications, wireless systems, and network infrastructure.
- Assisted with on-site event execution such as attendee registration, technical session support, and timekeeping across symposiums, workshops, and tutorials.
- Gained hands-on experience in organising a large-scale international engineering conference featuring over 900 symposium papers and 30+ tutorials and industry sessions.

### Jan 2025 - Feb 2025

Internship | 4 Paddy Close, Ottery, Cape Town

#### ALC Corp

- Operated and maintained hot tack testing machines used for evaluating the tensile strength of polymer films in packaging applications.
- Diagnosed critical issues with load cell calibration on malfunctioning testers; identified inconsistent force readings and system drift.
- Designed and fabricated a custom calibration tool to enable precise calibration of the machine's load cell, restoring measurement accuracy.
- Assisted in developing Delta PLC programs using Ladder Logic for packaging machine automation.
- Gained hands-on experience in industrial automation, sensor interfacing, and mechanical-electrical integration within a manufacturing environment.

### Jan 2024 - Present

Student Mentor | University of Cape Town

#### UCT Faculty of Engineering & Built Environment Student Mentor

- Mentored first-year engineering students to support their academic and social transition into university life, providing guidance on coursework, time management, and campus resources.

## REFERENCES

### Dr Yunus Abdul Gaffar

Lecturer - University of Cape Town

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### Mr. Graham Reggiori

Educator - Rustenburg Girls' High School

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