

# SAMEER SHABOODIEN

## Electrical Engineer

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## EXPERIENCE

### Electrical Engineering Intern

#### Octoco

📅 29 Jun 2023 – 10 Jul 2023

- **Decrypted Metering Protocol:** Deciphered and documented a discontinued electricity meter's protocol, creating custom interfacing software for external hardware integration.
- **Achievement:** Awarded a performance bonus for outstanding project completion.
- **Skills Developed:** Advanced protocol decoding, problem-solving, initiative.

### Hardware Analyst (Contract)

#### Octoco

📅 11 Jul 2023 – 14 Jul 2023

- **Hardware Debugging:** Resolved maintenance issues on over 100 PCBs for an international agricultural project, identifying recurring design flaws.
- **Skills Developed:** Hardware debugging, design flaw identification.

### Junior Software Developer and Electrical Engineer (Contract)

#### Octoco

📅 11 Sep - 15 Sep 2023

- **Wireless Meter Interface:** Improved C software for interfacing with over 200 GSM modems, fixing bugs and refactoring code.
- **Hardware Error Analysis:** Resolved interference issues causing random bit streams in communications.
- **Skills Developed:** Software development, wireless communication, systematic interference identification.

### Radio Frequency Engineering Intern

#### Lantern Engineering

📅 23 Nov 2022 – 7 Feb 2023

- **Unit Testing:** Used software tools to achieve full coverage over a large radio project.
- **IoT Integration and Debugging:** Integrated a Raspberry Pi with an array of IoT MATTER devices, identifying and fixing an EMI protection flaw.
- **Environment Setup:** Developed software for UART and I2C communication on an older IDE and chipset.
- **Skills Developed:** Unit testing, low-level software development, IoT integration, research.

### Part-time Tutor and Teaching Assistant

#### Stellenbosch University

📅 2021 – Present

- Tutored high school and university students in mathematics and engineering subjects.
- Assisted in tutorial sessions at Stellenbosch University.
- **Skills Developed:** Teamwork, professional conduct, process evaluation, communication, time management.

## EDUCATION

### Bachelor's in Electrical and Electronic Engineering

#### Stellenbosch University

📅 2021 – Present

### High School Diploma

#### Bishops Diocesan College

📅 2016 – 2020

## SKILLS

- Advanced Programming (C, Java, Python)
- Adobe Creative Suite
- Investment experience
- Foundational Certificate in Project Management – IPMA SA

## ACHIEVEMENTS

### Academic

- Received the Dell Young Leaders Scholarship
- Golden Key member (top 15% faculty)
- Full academic honors at Bishops and 90% matric average
- 11th nationally in Allan Gray Entrepreneurship challenge (2018)
- Top 10 in province for matric economics

### Cultural

- Half Debating Colors at Bishops
- Gold President's award and 200 hours of community service

### Sporting

- Western Province in judo and indoor cricket
- A-team high school hockey
- A-team club and school soccer

## LANGUAGES

### English

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### Afrikaans

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### French

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