# Sameer Shaboodien

## Studying Electrical Engineering

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## Summary

I am a fourth-year student studying electrical and electronic engineering at Stellenbosch University. During my university career, I have worked diligently to gain valuable engineering and leadership experience. I aim to consistently expand my knowledge base and undertake projects aligned with my passions and interests. At Bishops Diocesan College, I honed my academic skills while remaining well-rounded with sporting, cultural and community service activities.

## Academic Achievements

> 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

## Leadership Experience

> Vice-Chairman of the community service society at Bishops, leading public events including the Cyclathon.
> Appointed to two equality committees at Bishops.
> Appointed as class representative at Stellenbosch

## Education

> *Bishops Diocesan College (2016-2020).*
> *Stellenbosch University (2021-Present)*

## Skillset

> Low to High-level programming (C, Java, Python)
> Adobe Creative works
> Investment experience
> Afrikaans and French

## Cultural Achievements

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

## Sporting Achievements

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

# Experience

**29 June – 10 July 2023:** Octoco
*Role*: Electrical Engineer - Internship

- **Achievement:** Awarded a performance bonus for outstanding completion of my project.
- **Decrypted Metering Protocol:** Deciphered a large register, discontinued electricity meter's protocol, without any working experts in the country, and created custom interfacing software to allow external hardware integration.
- **Skills Developed:** Advanced protocol decoding, problem-solving, aggressive lead pursuit, initiative, serial monitoring.

**11 – 13 July 2023:** Octoco
*Role*: Hardware Analyst – Contract Work

- **Hardware Debugging:** Resolved hardware maintenance issues on over 100 PCBs on an international agricultural project. This included pinpointing recurring issues caused by design flaws.

**11 – 15 September 2023:** Octoco
*Role*: Software Developer and Junior Electrical Engineer - Contract Work

- **Wireless Meter Interface:** Made improvements to software in C. The software allowed high-reliability interfacing with over 200 GSM modems placed in the electricity meters. My work involved clearing some software bugs and refactoring the code. This required a foundational understanding of GSM modems and wireless communications.
- **Hardware Error Analysis:** Resolved an issue whereby random bit streams were entering communications due to interference between meters.

**23 November 2023 – 7 February 2024:** Lantern Engineering
*Role*: Junior RF software engineer - Internship

- **Unit Testing:** Used software tools to unit test on and gain coverage over a large radio project.
- **IOT integration and debugging:** Integrated a Raspberry Pi with an array of IOT MATTER devices locally. Identified an EMI protection flaw.
- **Environment setup:** Researched and wrote software to drive UART and I2C on an older, poorly supported IDE and chipset, to meet project specifications.

**2021 – Present:** Educator
*Role*: Tutor and teaching Assistant – part time

- **Outline:** Tutored high school and university students in mathematics and engineering including at Genius Premium Tuition, which involved extensive collaboration, tutee management, and progress evaluation. Also served as a teaching assistant at Stellenbosch University during tutorials sessions.
- **Skills Developed:** teamwork, professional conduct, process evaluation, communication, and time management.