SAMEER SHABOODIEN

Electrical Engineer (MEng Student)

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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 2023 – 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.

EDUCATION

BEng in Electrical and Electronic Engineering
Stellenbosch University
📅 2021 – 2024

- 70% Undergraduate Average (72% Honours)
- 80% Final Thesis Mark
- Awarded the Dell Young Leaders Scholarship
- Awarded Golden Key Membership (top 15% faculty)

High School Diploma
Bishops Diocesan College
📅 2016 – 2020

- 90% Matric Average
- Top Alpha Mathematics Student in School
- Top 10 in Province for Matric Economics
- 11th Nationally in Allan Gray Entrepreneurship Challenge (2018)

LEADERSHIP

- **Class Representative**, Stellenbosch
- **Vice-Chairman**, Community Service Organization, Bishops
- **Teaching Assistant and Tutor**, Stellenbosch
- **Best Student Award (Leadership)**, European International Programme
- **Entrepreneurial Ventures & Network Building**

SKILLS

- C, Java, Python
- Adobe Creative Suite
- Investment Experience
- Project Management (IPMA SA Certification)
- English Fluency, working proficiency in Afrikaans and basic French communication.

ACHIEVEMENTS

Cultural

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

Sporting

- Represented Western Province in Judo and Indoor Cricket
- A-team Member in High School and Club Hockey and Soccer