SAM JEFFERY

MENG ELECTRONIC ENGINEERING

ONTACT

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EDUCATION

MEng Electronics
2021-2022
Stellenbosch University
Electronic Systems Lab (ESL)
71% Final Mark
Thesis: *'Development of Satellite Systems for use in a Bench Satellite'*

BEng Mechatronics *cum laude*
2016-2019
Stellenbosch University
83% Weighted Average
Highest achieving student in M&M Engineering Department

National Senior Certificate
2011-2015
Diocesan College
91% Average, Eight distinctions

SKILLS

Programming – C, Python, VHDL

Embedded software – RPi, STM32, Zynq FPGA

Electronic design software – Altium, KiCAD

FPGA software – Vivado, Vitis, ModelSim

OTHER WORK EXPERIENCE

Beech Mountain (NC, USA)
Nov 2019 – Feb 2020
Ski lift operator

Engineer intern

SARAO – Dec 2018
I&J – June 2018
Paterson & Cooke – Dec 2017

REFERENCES

Dr W. Jordaan | MEng Supervisor
C. Potgieter | Innoventix
H. Burger | SANSA (CubeSpace)

Details available on request

PROFILE

I am an electronic engineer with a strong aptitude for programming. I have experience with the entire electronic design process having produced and programmed multiple PCBs during my master's project. An avid sportsman, a lifetime of team sports has taught me about punctuality, communication, and team building. I am focused on challenging myself to learn new skills to become a more dynamic and versatile team member.

EXPERIENCE

Development Engineer | Innoventix Consulting | Pretoria, RSA
Feb 2023 – Dec 2023

At Innoventix, I specialised in VHDL coding for FPGA applications. Learning VHDL presented an exciting challenge and successfully using it to complete my tasks was particularly rewarding. I was involved in a variety of projects including designing control and communications firmware for a drone and designing AXI interfaces for an IMU and a one wire temperature sensor.

Junior Engineer | CubeSpace ADCS Solutions | Stellenbosch, RSA
May 2020 – Dec 2020

CubeSpace employed me during the 'lockdown' months and then sponsored my masters in electronic engineering. The principle part of my job was the production, calibration, and testing of ADCS components. Amongst other tasks, I developed software to control and log data from a thermal chamber with a Raspberry Pi during testing and I built a python application to communicate with the company's products.

Projects and Courses

MEng Project: I developed a bench satellite for use during laboratory testing. My work involved designing, building, and programming multiple interworking subsystems from scratch.

BEng Final Year Project: "Development of a self-navigating AGV for use with multiple overhead cameras"

Udemy | "Learn VHDL and FPGA Development" | 10 Feb 2023

Coursera | "Stanford University Machine Learning" | 8 June 2020

PERSONAL ACTIVITIES

I am an active person and am very interested in sport. I love hockey and joining hockey clubs in the different cities I have lived in for school, university and work enabled me to build social circles and meet new friends. I also play golf and padel and am a keen runner.

I have travelled throughout Southern Africa and family holidays often involved some form of piling into a Land Rover and driving from Cape Town to Lusaka. During my year in Johannesburg, I made use of every opportunity to get into the African bush.