Johann Ruben van Tonder

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EDUCATION

01/2019 – Present   **Stellenbosch University**   **Stellenbosch**

- BEng Electrical and Electronic
- First year average of 64.2% with 1 distinction
- Second year average of 78.8% with 9 distinctions
- Third year average of 77.2% with 8 distinctions
- Fourth year, 1st semester average of 78.2% with 5 distinctions

01/2014 – 12/2018   **DF Malan High School**   **Bellville**
- National Matric Certificate, 5 distinctions, final grade 83.2%

PROFESSIONAL EXPERIENCE

6/2022 – 07/2022   **MiX Telematics**   **Stellenbosch**

- Re-joined the Firmware Qualification Team
- Exposed to Firmware & Hardware team
- Exposed to Scripting CAN signals

2/2021 – 02/2022   **MiX Telematics**   **Stellenbosch**

- Formed part of the Firmware Qualification Team (6 members)
- Monitoring Field Trail units, reported on data and investigated into any problems
- Tested and troubleshooted data parser tool
- Expanded the hardware of a regression machine housing 10 units to enable CAN functionality
- Developed and tested on Python functionality in simulating GPS trip and adding CAN data, which are integrated into National Instrument's Teststand application
- Familiarised with Jira and Confluence for data keeping and tasks management

02/2021 – 03/2021   **Ampo Electrical (Pty) Ltd**   **Bellville**

- Understanding and drawing of electrical circuit diagrams, including grid integration, solar PV and batteries
- Integration and System knowledge of Victron Energy Storage System
- Basic knowledge of Solar PV design, integration and installation
- Designed Solar Irradiance Excel GUI

12/2020 – 02/2021   **Yebo Electronics CC**   **Bellville**

- Basic Management of 7 employees
- Created ICT Baseline
- In depth understanding of electronic components
- Solving customers electrical/electronic circuit problems

LEADERSHIP EXPERIENCE

01/2020 – 03/2020	**Vice – Captain of Helderberg u/20 rugby**	**Stellenbosch**
01/2018 – 12/2018	**Student Council at DF Malan High School**	**Bellville**
01/2018 – 12/2018	**Vice – Captain of first team rugby**	**Bellville**

AWARD/S AND HONORS

- Academic Honours (2016-2018)
- Certificate of Academic Excellence (2020, 2021)
- Golden Key award (top 15%, 2021)
- SANSA Bursary Recipient (2022)

VOLUNTEERING

- Academic Tutor (2017-2018)

ACADEMIC TUTORING

- E-design 314 (2021)

SKILLS

Languages: Fluent in English & Afrikaans.

IT: Proficient in MS (PowerPoint, Excel, Word), Latex, C, Python

Final Year Project: Investigating the limitations of a CW Doppler Radar for vehicle speed measurements and enforcement

Projects: Arduino based projects(Self driving toy car), Raspberry Pi Camera, Arcade Game device built with STM32 microcontroller, Solar battery Charger

Interests: Renewable Energy sources/methods, newly developed technology, AI, Electronics, Space Exploration, EV, Control Systems, IoT, Robotics, wearables