Kyle Ahlschlager

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Education

Stellenbosch University   **Western Cape, RSA**
Masters of Engineering in Electronic Engineering   *Jan 2022 - Present*

- **Research Topic:** Developing an autonomous robotic platform, that is capable of navigation over unknown, rough terrain. A platform-fusion approach is used to ensure successful adaptability of the system. This research has resulted in two publications;
  - ∗ "Using a multi-robot system for improved path planning", published in 2023 RAPDASA-RobMech-PRASA-AMI Conference.
  - ∗ "Tethered Multi-Robot System for Improved Path Planning and Exploration", accepted into the 2023 iteration of ICAR (*International Conference on Advanced Robotics*).

Stellenbosch University   **Western Cape, RSA**
Bachelors of Engineering in Electical and Electronic Engineering *Jan 2018 - Dec 2021*

- **Specialisation:** Robotics
- **Course average:** 65%
- **Final year research topic:** using trajectory optimisation to control a walking biped. This involved the design and construction of the biped, as well as the setup of a simulation environment to develop movement trajectories.

Dale College Boys' High School   **Eastern Cape, RSA**
National Senior Certificate   *Jan 2013 - Dec 2017*

- **Course average:** 89%
- **Awards:** 2017 Dux Scholar.

Technical Skills

Languages: C, C++, Python, LaTeX
Software: Fusion 360, Inventor, SolidWorks, Onshape, Linux, MATLAB, Simulink, OpenCV
Hardware: Arduino, STM32, Raspberry Pi, Jetson Nano
Fabrication: 3D printing (FDM and Resin), Machine tools, Sheet metal

Languages

English: native
Afrikaans: good
German: beginner
Dutch: beginner

Experience

Witchkrantz Farm   **Eastern Cape, RSA**
General Worker   *Jan 2015 - Present*

- Performing maintenance on tractors and other machinery.
- Installation and maintenance of a security system; CCTV, electric-fencing, access control.
- Installation and maintenance of a backup power system, solar inverter with Lithium-ion battery pack and backup generator.

Berlin Meats and Dairy   **Eastern Cape, RSA**
General Worker   *Jan 2015 - Present*

- Installation and maintenance of a security system; CCTV, access control.
- Installation and maintenance of a backup power system, solar inverter with Lithium-ion battery pack and backup generator.
- Maintenance and troubleshooting of POS system.
- Interacting with a diverse group of employees and customers.

Stellenbosch University   **Western Cape, RSA**
Learning Assistant - Electronics 315, Computer Systems 245, Control Systems 314   *Feb 2022 - Jun 2023*

- Assisting students during tutorial and practical sessions with coursework and operating laboratory and experimental equipment.
- Assisting in the marking of formative assessments and practical reports.