Rondebosch, Cape Town, 7701
+27 84 708 0838
**dylantrowsdale@gmail.com**

## DYLAN THOMAS TROWSDALE

**SKILLS & ABILITIES**

PCB and Circuit Design

Programming: C++, Python, Java, MATLAB, HDL and Assembly

Machine Learning

Signal Processing

Native English, Limited Working Afrikaans and French

First Aid level 1

Driver's License

**EDUCATION**

### Tertiary- University of Cape Town
### 4th year BSc Eng in Electrical and Computer Engineering.

- Achieved a first class (above 75%) GPA
- Dean's merit list 2021, 2022 and 2023
- Tutor for First year Computer Science, Electronic Engineering, Signals and Systems 2 and Third-year Electrical Engineering Design

### National Senior Certificate- Crawford International Lonehill

- Graduated 6th in the grade with an average of 87.23% and 6 distinctions, with distinction in AP Mathematics
- Member of the Academic portfolio of the Student Executive council
- Subject prizes (Top 3 placement in a subject)
  - French: 3x gold medal, 1x bronze
  - Physical Sciences: 2x silver medal
- 2x Second round Math's Olympiad
- 2019 Finalist Grade 12 SAIPA Accounting Olympiad

### Online Courses- MIT, edX and Coursera

- Mechanics: Kinematics and Dynamics
- Python
- Machine learning
- MATLAB Onramp
- Simulink Onramp

**EXPERIENCE**

**RESEARCH ASSISTANT**

**African Robotics Unit (UCT): 2023-2024 (6 months)**

- Analyzed high frame-rate videos of cheetahs to identify and isolate tail flick moments.

- Synchronized video clips and Performed camera calibration using MATLAB to obtain intrinsic and extrinsic data for 3D reconstructions.
- Created and refined a DeepLabCut Deep Learning model for markerless 2D and 3D pose estimation of cheetah tail flicks.
- Trained the model using both cloud computing (Google Colab) and a high-performance server PC.
- Iteratively refined the model by analyzing results, extracting outlier frames, and retraining to improve accuracy.

**INTERNSHIP**

**Paratus Telecommunications Limited Zambia: 2022-2022 (2 weeks)**

- Daily infrastructure and facilities inspections at Data Center including Power Train and .
- Worked with NOC engineers to monitor performance and function of Data Center.
- Worked with installation teams to install Microwave radio antennas at customer premises.
- Help manage points of presence at the Head office.

**Logical Creations: 2022-2022 (1 month)**
Interned at Logical Creations electronic workshop and repair center in Sandton, Johannesburg.

- Soldered and debugged faulty electronic equipment.
- Made antennas for microphone radio transceivers, camera connectors and LED studio lighting for a television studio based in Sandton.
- Fixed studio camera gimbal and tripod.

| LEADERSHIP | **Treasurer of the ju-jitsu club at the University of Cape Town in 2022.**

**Member of the Academic portfolio of Student Executive Council at Crawford International Lonehill.**
The Student Executive Council was responsible for organization and running of all school held functions, assemblies and fund raisers.
The Academic portfolio was responsible for ensuring all the academic needs of the students were met.
Assisting in the planning of timetables and test schedules.
Organizing help and extra lesson programs after school. |
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| HOBBIES AND INTERESTS | U19 Gauteng touch rugby squad.
First team rugby and touch rugby.
First team cricket (merit award).
Photography.
Hiking.
Ju-Jitsu. |
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| COMMUNITY SERVICE | Rise Against Hunger (NGO and global movement to end world hunger).

Edulift SA (NGO teaching under privileged children).

Working at an animal shelter for abandoned animals. |
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**REFERENCES**

- Associate Professor Amir Patel, Director of African Robotics Unit at UCT
  amir.patel@uct.ac.za

- Marius van Vuuren, Paratus Telecommunications Limited Reg No: 85774
  Brentwood Office Park, Brentwood Lane, Lusaka, Zambia
  T +260 (211) 262 698, info.zm@paratus.africa
  Directors: WM Jansen van Vuuren (CM), SLV Erasmus, CG Chinyant

- Neville Reid, Logical Creations, 138 Mowbray Road Greenside 2193 Johannesburg
  Mobile: +27 83 375 2382, logicalnev@gmail.com