

# SAM TRUSTRUM

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## EDUCATION

**The University of New South Wales (UNSW)** 2021 - 2025  
*Bachelor of Engineering in Electrical Engineering (Honours)* Sydney, AU

- Involvement in numerous student-led projects: UAVs, robotics, programming
- *Electives:* Electronics, Computer Architecture, DSP, Control Systems, Data Structures & Algorithms

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## SKILLS

**Software:** C/C++, Python, JS, Assembly, MATLAB & Simulink, ROS2, ESP-IDF, STM32CubeIDE, Computer Vision  
**Hardware:** PCB design, Electronics Troubleshooting, Verilog FPGA Programming, CAD, 3D Printing, Laser Cutting  
**General:** Technical Communication, Initiative, Inter-Disciplinary Collaboration, Leadership, Customer Service

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## EXPERIENCE

**Electronics Technical Officer** Feb 2026 - Present  
*Government of South Australia* Adelaide, AU

- Assembly, configuration, deployment, and maintenance of electronics for water resource monitoring in severe environments.
- Redesign of a cellular signal strength meter: STM32U5 programming, touchscreen LCD driver development, embedded UI design, PCB design.

**Electrical Engineer Intern** May 2025 - Sept 2025  
*Contactile* Sydney, AU

- Projects:
  - \* Robotic gripper demonstration system (PCB Design & Assembly, CAD, Embedded & App Development)
  - \* Characterisation of tactile sensors (Image Processing, CAD, Raspberry Pi)
  - \* Automated pick and place system with 6-DOF robotic arm (ROS2, Python)
- Technical skills:
  - \* *Electrical prototyping and troubleshooting:* multimeter, oscilloscope, logic analyser, soldering, printed circuit board design and assembly
  - \* *Programming:* C, Python, ROS2 on Ubuntu, embedded systems
  - \* *Mechanical:* CAD with Fusion, 3D printing

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## PROJECTS

**University UAV Competition** 2022 - 2024

- Avionics selection, configuration, and assembly for the AIAA Design Build Fly competition.
- Project management, budgeting, liaison with sponsors, marketing, and onboarding of new technical members.

**University Quantitative Finance Society** 2024

- Maintained and added features to society website and mock-trading engine.
- Hosted Verilog FPGA development seminar.

**University Sumobots Competition** 2023

- Embedded systems development, electronics, mechanical design and manufacturing for a robotics competition.

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## MISCELLANEOUS

**Legal Status:** Australian-born Citizen, British Citizen (through parents), Eligible for US E-3 Visa  
**Online:** [Projects portfolio \[https://samtt.co\]](https://samtt.co) [LinkedIn](#) [Github](#)