## Tristan Le

P: +61 435 203 722 | tris.enterprise8@gmail.com | linkedin.com/in/trist4nl3/ | github.com/trist4nl3 |

#### **EDUCATION**

# Royal Melbourne Institute of Technology

Feb 2023 - Dec 2027

Bachelor of Computer and Networking Engineering (Honours)/Bachelor of Computer Science

Melbourne, VIC

- Minor in Artificial Intelligence and Machine Learning
- Grade: 3.6/4.0 (**HD**)
- Awards: Westpac Young Technologists Scholarship (1 in 35 nationally)

### **WORK EXPERIENCE**

Data Annotations Remote

Software Developer

March 2024 - Present

- Refined LLMs using Reinforcement Learning from Human Feedback to improve contextual and generative accuracy.
- Reviewed and optimised AI-generated code and explanations across Python, C++, and Javascript
- Performed data labeling, quality assurance, and prompt evaluation for instruction tuning and fine-tuning alignment.

### RMIT High Velocity Rocketry Team

Melbourne CBD/Bundoora

IREC Grounds Support Equipment Lead

July 2025 – Present

- Leading the international rocketry subsystem team, overseeing ground support equipment including electronics, filling station plumbing, and integrating control systems.
- Designed and manufactured custom **PCB**s for the ignition system, data acquisition and manual filling operations of the Student Research and Developed Hybrid Rocket Engine

Avionics Engineer / Researcher

April 2025 - July 2025

- Developed a **data replay system** that interfaced with the Ground Control System (GCS) enabling post mission data analysis and simulation of the rocket telemetry system.
- Designed and implemented the **data cleaning and validation pipelines** using Python and Pandas to improve the analysis quality and reproducibility of launch data.
- Leading the development of a 6DoF rocket simulator, incorporating Physics Informed Neutral Networks
- Lead the avionics integration for our competition rocket Atlas including all the wiring, designing and implementation of flight computers and electronics for the airbrakes, ground control systems and parachute deployment.

## **KEY TECHNICAL PROJECTS**

## Real Time Rocket Simulator | Python, C++, Pandas, Numpy

- Leading development of a **real-time**, 6DoF physics-based rocketry **simulator** inspired by RocketPy, using **Python and** performance critical C++ components
- Researching and integrating Physics Informed Neural Networks (PINNs) to reduce simulation compute load while maintaining rocketry fidelity.

### Interest Rate Forecasting System | Python, Pandas, scikit-learn, statsmodel, excel, beautifulsoup

- Built modular data pipelines to extract macroeconomic indicators from Excel datasets and scrape monetary policy statements or table data using BeautifulSoup
- Engineered time-aligned datasets with lagged features, allowing new data sources to be easily integrated via a class-based architecture.
- Trained and evaluated **Random Forest** regressors using **time series cross-validation** (optimised for RMSE and interpretability) and applied **Vector Autoregression** to model lagged policy trends.
- Achieved 0.2% error on 1-month forecasts and 1.5% error on 6-month predictions in comparison to popular models such as ASX.

## Live Game Server Hosting | Linux, Java, Javascript, JSON

- Deployed and maintained a modded game server (300+) on a **Linux Oracle Cloud** instance.
- Built and managed a custom modpack, including original **scripting** for gameplay mechanics and server logic using **Javascript** (JSTweaks) and **JSON** data packs.
- Configured secure **server-side networking** (firewall rules, port forwarding)
- Implemented automated backups, recovery scripts and patch updates achieving 99.9% uptime over several months.

### **TECHNICAL SKILLS**

Languages: Python, C++, JavaScript, HTML/CSS, SQL, C

Technologies & Tools: Numpy, Pandas, Git, Excel, Flask, Linux, JSON, Altium, Kicad