

Callum Battilana

📍 Melbourne, Australia 📩 callum.battilana@bigpond.com ☎ 0444-551-698 🖼 Medium 💬 LinkedIn
🌐 GitHub

Skills

Languages **Proficient:** Python, R
Experienced: SQL, Excel

Tech Stack Jupyter Notebook (Anaconda), Pycharm, Rstudio, Git

Experience

Bureau of Meteorology

- Developed a Convolutional Neural Network machine learning model for estimating global wind patterns every hour across the globe. The technical tools used include Pandas, PyTorch, and Tensorflow. **The model's accuracy was between 70-90 percent globally, while only receiving data from just 0.7 percent of the globe.** This model could **increase forecasting efficiency by 100 times** compared to traditional approaches. Findings will be published soon in an academic journal.
- Managed over 500 Gigabytes of training data for the model. Such data was hourly global wind patterns every hour for 25 years.
- Presented my findings globally to climate researchers who were part of the APARC Reanalysis Inter-Comparison Project.

Jul 2025 – Oct 2025

Docklands, Melbourne

Asahi (Carlton United Breweries)

- Worked in a cross-functional team with Engineers, Mechanical Operators, and Quality Maintenance professionals.
- Used Excel VBA to develop prototypes of various charts that can forecast future issues with can seamer quality in real time using data showing the measurement specifics of can seamers over time. These charts can also infer whether the future issue is due to the company itself or external providers.
- Various statistical modeling techniques were used such as tests for normality, as well as t-tests and ANOVA tests. These tests validated the effectiveness of the charts.
- These charts **were able to diagnose problems weeks before they were found manually by the company.** If these charts were used earlier by the company, **5 million dollars would have been saved** in 2023 alone.

Jul 2024 – Oct 2024

Abbotsford, Melbourne

Education

Monash University

Applied Data Science (Honours): **Grade Point Average: 3.281 (Distinction)**

Feb 2022 – Nov 2025

Clayton, Melbourne

Hobbies

- Write Data Science related articles on Medium.
- Keen chess player. Played in competitions at school, and I still play frequently online.
- Play viola: Joined an orchestra at University.

Volunteering

Interchange Outer East

Mar 2025 – Present

Ferntree Gully, Melbourne

- Looking after disabled people and socializing with them while going on fun activities.