

# Tom Marsh

## Contact

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## About me

I am a very curious and quick-learning individual who thrives when challenged and exploring unfamiliar domains. I am just as comfortable working in a team environment, bouncing ideas off each other, as I am plugging away solo with some headphones in. I enjoy breaking down complex topics into digestible fragments which has led me to add a teaching and mentoring component to my current role and outside of work.

## Experience

**FEBRUARY 2018 - Present**

**Ströer Labs NZ**, Christchurch NZ - *Data Scientist*

**Company:** Ströer Labs NZ is a New Zealand based development house for the European digital programmatic advertising company Ströer. Here I picked up many different programming languages and technology stacks while working in an AGILE environment.

**My role:** I started working for Ströer as a Java-based Software Engineer before being given the opportunity to help start a data team for our New Zealand branch. This allowed me to experience the full spectrum of data roles including; Data Engineering, Data Science, and Machine Learning Operations. Giving me a solid foundation for taking projects from end to end.

**Projects:** These ranged from typical classification and numeric prediction to optimisation and risk management. As most of the data was categorical in nature this led to mainly decision tree-based algorithms and timeseries analysis. The datasets being in the TB and PB range meant utilising distributed computing platforms such as Apache Spark was critical.

**Highlights:** Reducing the time taken to render impressions on the page by 50%. Reducing outgoing data costs for some of our applications by up to 35%. Introducing versioning and reporting tooling that is usable by all walks of employees.

## Languages

**Daily:** Python, SQL, Scala

**Occasional:** Java, Kotlin, JavaScript, C, VBA, GDScript, R

## Technologies

**Data Engineering:** Spark, EMR, AWS Glue, Apache Airflow, Apache Kafka, Amazon S3

**Data Science:** LightGBM, XGBoost, Sklearn, Pandas, NumPy, Jupyter Notebooks, Keras, TensorFlow

**Machine Learning Operations:** AWS SageMaker, AWS Lambda, Docker, Kubernetes

**Other:** Streamlit, AWS Athena, SuperSet, Linux, OSX, Godot Engine

## Education

**JULY 2022 - Present**

**University of Canterbury**, Christchurch NZ - *MSc Physics*

My research area is Atmospheric Physics with a specialisation in extreme weather event analysis and climate change.

**FEBRUARY 2015 - DECEMBER 2017**

**University of Canterbury**, Christchurch NZ - *BSc Physics and Computer Science*

My research area was Solid State Physics with a specialisation in thin film growth for quantum information applications.

## Miscellaneous

**Mentoring and Public Speaking**

Over the years I have enjoyed mentoring entry-level tech workers from Australia and New Zealand across Data Science, Data Engineering, Software Engineering, and Game Development.

During 2022 I worked with TechWomen NZ alongside another mentor to facilitate a peer group mentoring circle for entry-level tech workers.

More recently in 2023, I have dipped my toes into public speaking on my experience as a Data Scientist.