

Samuel Hinton

Full Stack Data Scientist

✉ samuelreay@gmail.com 📍 Brisbane, Australia 🌐 <https://cosmiccoding.com.au>

🔗 Professional Summary

- Creating data science platforms to interface with microservice and event-driven architectures.
- Creating and scaling data engineering pipelines and MLOps platforms.
- Price forecasting using statistical methods and modern machine learning techniques.
- Optimisation of high-dimensional problems using computational methods for financial trading.

📁 Professional Experience

Senior Data Scientist Consultant

2022

Brisbane

- System design for robust, event-driven algorithmic trading platform.
- Technical lead for financial optimisation of energy trading in a probabilistic and stochastic market, increasing revenue by over 100%.
- Implemented from concept to production market forecasting models using both statistical and machine learning models.

Arenko Group

2020 - 2022

London

Senior Data Scientist

- Implemented MLOps pipelines in AWS, including feature store, model versioning (mlflow), model serving all in production level python code (FastAPI).
- Lead data engineering, orchestration (Prefect) and digestion pipelines in a microservice framework.
- Created interactive visualisations of market opportunities (matplotlib, plotly, Streamlit, Dash, angular)

University of Queensland

Lead Data Analyst

2020 - 2020

Brisbane

- Created a data science pipeline for the COVID-19 Critical Care Consortium, including ingestion, standardisation, and reporting.

Astrophysicist

2016 - 2020

Brisbane

- Created data pipelines to run from data preparation to classification, modelling and reports.
- Created machine learning classifiers to discriminate between supernova.
- Applied high-dimensional modelling techniques on astrophysical problems.
- Organised a team of two dozen researchers across multiple countries.

GBST

Software Developer

- Developed business intelligence reports and user-facing applications (angular, Java) for front office financial traders.
- Created and optimised large scale SQL queries.
- Optimised databases and applications for network, processing, and memory constraints.

Education

Doctor of Philosophy (Astrophysics) <i>University of Queensland</i> Thesis: Analysed supernovae in the Dark Energy Survey using Hierarchical Bayesian Modelling.	2016 - 2020
Bachelor of Science (Physics, Honours) <i>University of Queensland</i> Thesis: Analysed the Baryon Acoustic Oscillation signal.	2010 - 2015
Bachelor of Engineering (Software, Honours) Thesis: Created the first web application to compute redshifts from spectra.	2010 - 2014

Notable Awards

Lindau Nobel Laureate Delegate <i>Australian Academy of Science</i> Australia representative at LIN019.	2019
Future Superstar Award <i>University of Queensland</i> Highest performing PhD student.	2019
Bok Prize <i>Astronomical Society of Australia</i> Best astrophysics honours thesis in Australia.	2016
Science Faculty Graduate of the Year <i>University of Queensland</i>	2016
Australian Institute of Physics Prize <i>University of Queensland</i> Top physics graduate.	2016
David Andrew Krnak Memorial Prize <i>University of Queensland</i> Top engineering graduate.	2015

Publications

Author on 200+ refereed works, 6 first author publications. Three highest cited relevant to data science field are:

ChainConsumer <i>The Journal of Open Source Software</i>	2016
MARZ: Manual and automatic redshifting software <i>Astronomy and Computing</i>	2016
Pippin: A pipeline for supernova cosmology <i>The Journal of Open Source Software</i>	2020