

Jamie Hepburn

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Summary

Senior Data Scientist building robust AI systems for production. I enjoy turning ambiguous problems into concrete, reliable solutions through experimentation. Currently focused on evaluation systems for agents and fine-tuning techniques for domain-specific applications.

Experience

Senior Data Scientist - Generative AI, Quantum – Sydney, NSW Apr 2025 – present

- Led technical development of multi-modal marketing assistant serving 300+ users. Automated brief creation, multimedia content generation, and synthetic audience generation, targeting 10% productivity improvement.
- Built on-demand analytics tool for commercial negotiation with AI report generation and frontend. Reduced report generation time from 5 minutes to under 30 seconds by optimizing agentic architecture and data pipeline.
- Built review dashboard streamlining synthetic user scoring and automated goal generation for customer-facing retail agent, accelerating test coverage across diverse customer scenarios.
- Conducted 2 technical reviews providing guidance, quality assurance, and risk assessment across organisation's Gen AI initiatives as Review Team member.
- 2025 Employee of the Year for technical excellence delivering production Gen AI systems.

Data Scientist - Generative AI, Quantum – Sydney, NSW Mar 2023 – Mar 2025

- Built first production Gen AI system at Quantum. Deployed hybrid LLM-based classification system processing 2M+ customer comments annually. Now used across multiple teams and business units for ongoing classification, replacing large vendor contract.
- Developed hybrid product matching system combining LLM classification, custom matching algorithm, and GBM for feature importance learning. Achieved 95% competitor coverage and \$622K annualised benefit with automated pipeline.
- Built automated refund classification system combining LLMs with rules-based logic to categorise refunds into risk groups. Productionised data feed and analytics dashboard in 4 weeks, saving \$400K annually.

Graduate Data Analyst, Quantum – Sydney, NSW Feb 2022 – Feb 2023

- Developed Python and SQL analytics application for retail space planning optimisation with frontend interface to support range decision making.
- Performed data quality investigations using SQL and Python to identify pipeline failures, data issues, and optimization opportunities across retail forecasting projects for stakeholder teams.

Education

University of Sydney, Bachelor of Science and Advanced Studies in Physics & Philosophy (Double Major) 2018 – 2021

- First Class Honours in Astrophysics. Honours thesis: Applied deep learning with TensorFlow to classify galaxy morphology from large-scale astronomical datasets.

Technical Skills

ML/AI: LLMs, Agentic Architectures (LangGraph, LangChain), PyTorch, TensorFlow, XGBoost, Model Evaluation (Langfuse)

Data & Cloud: Python, SQL, dbt, BigQuery, GCP, Docker, ETL Pipelines, Data Quality Monitoring

Experimentation: A/B Testing, Statistical Analysis, Experimentation Frameworks, Analytics Dashboards