

Adam J Campbell PhD

mobile: +64 022 698 1266

email: campbead@gmail.com

linkedin: [adamcampbellphd](https://www.linkedin.com/in/adamcampbellphd)

Highly analytical and results-oriented data professional with expertise in managing data warehouses and a strong understanding of ELT processes. Proven ability to extract meaningful insights from complex datasets using SQL, data visualization tools (R Shiny, Power BI), and advanced data modeling techniques. Effectively communicates data-driven findings to both technical and non-technical audiences, leading to improved business decisions.

Skills

Python	R / tidyverse / shiny
Snowflake/ MySQL / MSSQL / PostgreSQL	AWS / Azure Cloud Services
Ansible / CloudFormation	Git / GitHub
dbt	Linux / Windows OS
Airflow	Docker

Experience

Data Engineer (Remote)

April 2023 – Present

Ministry for the Environment – IT Division

- **Built a scalable data ingestion and processing system** leveraging cloud technologies (AWS S3, Lambda, Snowflake, dbt-core) and an ELT framework, transforming ad-hoc manual updates into an automated, continuously-updated system. Implemented robust data quality checks and monitoring systems across the pipeline to ensure accuracy and integrity. This resulted in improved data efficiency, scalability, and reliability, enabling faster and more informed decision-making across the organization.
- **Designed and implemented CI/CD pipelines using GitHub Actions**, automating deployments to ensure reliable and consistent data transformations. Led the adoption of GitHub Actions across the team, cultivating a culture of collaboration and accountability. This initiative led to increased code review participation, improved deployment transparency, and greater confidence in the deployment process across teams.
- **Optimized and maintained Snowflake data warehouse pipelines**, proactively identifying and resolving performance bottlenecks and data quality issues. Implemented monitoring and alerting systems to ensure smooth and efficient pipeline operations, reducing downtime and improving overall system reliability.

Kaitātari Matua | Senior Data Analyst / Data Analyst (Remote)

March 2021 – April 2023

Ministry for the Environment – Joint Evidence, Data, and Insights Division

- **Designed and delivered interactive dashboards and visual publications** using Power BI and R Shiny, enabling data-driven decision-making for public-facing applications, internal teams, and executive stakeholders. Rapidly synthesized and transformed complex datasets into actionable insights, ensuring reproducible results and timely delivery of high-impact visualizations.

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- **Delivered a critical public data product** by aggregating, cleaning, and integrating datasets from 76 local councils into a unified, scalable system. Designed and deployed interactive dashboards to visualize complex data insights, enabling public accessibility and supporting data-driven decision-making for stakeholders.

Business Analyst / Geospatial Analyst

August 2018 – March 2021

Dunedin City Council – Business Information Systems

- **Delivered a scalable security education platform** by transforming a proof of concept into a fully functional solution. Collaborated with stakeholders to gather requirements, define user stories, and implement a system now utilized by nearly 1,000 employees for ongoing security training, enhancing organizational awareness and compliance.
- **Designed and developed a machine learning tool** using clustering algorithms (TF-IDF) to categorize council documents based on keywords and phrases in full-text. This solution enabled archivists to efficiently organize and retrieve large volumes of documents, significantly reducing manual effort and improving productivity.

Postdoctoral Researcher

September 2015 – August 2018

University of Otago – School of Surveying

- **Pioneered a novel multivariate statistical analysis method** to interpret present-day changes in Antarctica's ice shelves, integrating computational models with geospatial-time series data. Developed statistical fingerprints for ice shelf events, accurately identifying the timing and magnitude of past known events. Leveraged this model to project ice shelf evolution over the next 300 years, providing critical insights for climate research and future forecasting.

Education

Ph.D. Earth and Space Science, University of Washington
M.S. and B.S. Geology, Portland State University

2015
2009

Volunteer Works

Leader - Andersons Bay Sea Scouts

March 2020 – Present

Activities

Running

Bicycling

Beer Brewing