# Cody Hou

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# **SUMMARY**

• Data Analyst with a proven track record of delivering data-driven business solutions across energy, finance, and public health sectors, achieving cost reductions of up to AUD 1M annually through optimized reporting and predictive modeling.

- Expert in SQL, Python, Power BI, Tableau, and Databricks, with hands-on experience in dbt, Snowflake, and BigQuery for scalable ETL pipelines, data modeling, and cloud-based analytics.
- Skilled in **KPI design**, **operational performance analysis**, **and financial forecasting**, enabling executive teams to make informed strategic decisions.
- Adept at integrating data from APIs, ERP systems, and IoT devices, ensuring data integrity, compliance, and audit readiness in both corporate and government settings.
- Passionate about applying **predictive analytics**, **automation**, **and advanced visualization** to uncover actionable insights, improve operational efficiency, and drive measurable business outcomes.

## SKILLS

Languages: Python, SQL, R, Bash.

Data Storage: BigQuery, Databricks, Redshift, Snowflake.

ETL & ELT: dbt, Fivetran.

CI/CD: GitHub Actions, GitLab CI/CD.

Workflows: Airflow, Dagster. Platform: AWS, Azure, GCP.

Version Contral: Git, GitHub, GitLab.

#### WORK EXPERIENCE

Data Analyst Jun 2025 – Present

Renox Technologies Full-Time

- Extracted and integrated data from internal databases, RESTful APIs, and GraphQL endpoints to deliver dynamic dashboards and KPIs with Power BI/Tableau.
- $\bullet$  Designed a Python-based simulation model for PV + battery systems to analyze real-world energy storage performance and market feasibility.
- Provided data-driven proposals and insights to customers on cost savings and ROI, while automating reporting workflows
  and ensuring compliance across systems.
- Key Achievements:
  - \* Helped clients achieve **Net-Zero energy costs**, reducing annual electricity expenditure from **AUD 1.03M** to **Bill Zero**.
  - \* Delivered ROI in just 4 years, supported by data-driven PV + battery system design and cost-benefit analysis.

Data Analyst Mar 2025 – Present

Upwork Remote

- Designed and delivered custom reports and dashboards using Power BI to assist clients in decision-making.
- Assisted clients in data cleaning, ETL processes, and data reporting automation to streamline workflows.
- Helped clients set up KPIs and created basic predictive models to forecast trends and improve business strategies.
- Kev Achievements:
  - \* Delivered high-quality reports and dashboards on-time to help clients visualize their data and gain insights.
  - \* Received positive feedback and built trust with initial clients, leading to repeat business opportunities.

Data Consultant Dec 2024 – Feb 2025

Centauri Alpha Remot

- Designed and implemented custom analytics solutions using **Power BI** and **Python** to help small businesses optimize decision-making.
- Developed predictive models and data visualization dashboards to enhance data-driven strategies.
- Automated ETL workflows to improve data processing speed and accuracy.
- Collaborated with marketing and finance teams to define **key performance indicators** (KPIs) and create dashboards that support business growth.

- Analyzed multi-dimensional datasets to generate actionable insights for client growth strategies.
- Kev Achievements:
  - \* Optimized KPI dashboards, leading to a 20% improvement in business goal alignment.
  - \* Enhanced customer acquisition strategies, resulting in a 25% increase in client growth.

# Research Assistant - Data Analyst

 $Jun\ 2024-Oct\ 2024$ 

The University of Queensland

Brisbane

- Collected, cleaned, and analyzed infectious disease data from diverse sources to provide actionable insights.
- Identified trends, patterns, and correlations in large, multi-dimensional datasets, driving data-driven decision-making.
- Created impactful reports and presentations, clearly communicating key findings and recommendations to stakeholders.
- Collaborated closely with stakeholders to define business needs and provide analytical support for strategic and
  operational initiatives.
- Key Achievements:
  - \* Utilized **simulation models** to reduce the spread of infectious diseases across travel networks in Pacific Island countries, leading to improved **epidemic control strategies**.
  - \* Presented research findings at the 7th Southern Cross Australasian Travel and Tropical Medicine Conference, contributing valuable insights to the field of infectious disease control in Pacific Island nations.

#### PROJECTS

# Sales Data Copilot: Lakehouse Pipeline with GenAI | Team Leader

Link

- Developed an end-to-end **AI-powered Lakehouse platform** ("Sales Copilot"), enabling **retail analytics from ingestion to insight**—integrating data ingestion pipelines, smart data modeling, and Copilot-driven insights.
- Engineered data workflows using Python with scalable lakehouse design, supporting structured/unstructured datasets—for intelligent KPI generation and automated sales reporting.
- Implemented Copilot features for **retail decision support**, enabling semantic querying and on-demand insight generation for sales teams.
- Leveraged technologies such as Lakehouse architecture, AI Copilot, and smart analytics, demonstrating full-stack data engineering and AI integration.

#### Energy Storage Value Optimization in PV Systems | Team Leader

Link

- Developed an interactive **Power BI** dashboard to evaluate photovoltaic system performance, electricity market trends, and battery storage ROI across multiple regions.
- Processed and integrated **hourly solar generation data** from Australia, Brazil, India, and Norway (2024), covering DC/AC output, irradiance, module/ambient temperature, and energy yields.
- Enriched analysis with **electricity price**, **demand**, **and supply data** via the OpenNEM REST API for Australia, enabling real-world revenue estimation and market feasibility studies.
- Calculated key KPIs including inverter efficiency, cumulative yields, system performance ratio, and estimated annual revenue of **AUD 7.97K** with a payback period of 4 years.
- Applied time-series analysis to identify performance patterns, temperature-efficiency correlations, and optimal battery dispatch strategies for increased profitability.

## **PUBLICATION**

#### Travel network analysis for infectious disease transmission in Pacific Island countries

 $\underline{\mathbf{Link}}$ 

7th Southern Cross Australasian Travel and Tropical Medicine Conference(Pg.10)

Sep 2024

#### CERTIFICATION

Databricks Fundamentals	$\underline{\mathbf{Credential}}$
DataBricks	Mar - 2025

dbt Fundamentals

Linkedin

Credential

Feb - 2025

# Atlassian Agile Project Management Professional Certificate

Credential

At lassian

Mar - 2025

# **EDUCATION**

#### Master of Data Science

The University of Queensland

2022 - 2024

Completed data-driven research on travel networks & infectious diseases.

# REFERENCE

#### Reference as request