

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 Control: Git, GitHub, GitLab.

WORK EXPERIENCE

Data Analyst

Jun 2025 – Present

Redx Technologies Australia

Full-Time

- Extracted and integrated data from internal databases, RESTful APIs, and GraphQL endpoints to deliver dynamic dashboards and KPIs with Power BI/Tableau.
- 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.
- **Key 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

Remote

- 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.

<ul style="list-style-type: none"> Analyzed multi-dimensional datasets to generate actionable insights for client growth strategies. Key Achievements: <ul style="list-style-type: none"> 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
<i>The University of Queensland</i>	<i>Brisbane</i>
<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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	<u>Link</u>
<ul style="list-style-type: none"> 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	<u>Link</u>
<ul style="list-style-type: none"> 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	<u>Link</u>
<i>7th Southern Cross Australasian Travel and Tropical Medicine Conference(Pg.10)</i>	<i>Sep 2024</i>

CERTIFICATION

Databricks Fundamentals	<u>Credential</u>
<i>DataBricks</i>	<i>Mar - 2025</i>
dbt Fundamentals	<u>Credential</u>
<i>Linkedin</i>	<i>Feb - 2025</i>
Atlassian Agile Project Management Professional Certificate	<u>Credential</u>
<i>Atlassian</i>	<i>Mar - 2025</i>

EDUCATION

Master of Data Science	
<i>The University of Queensland</i>	<i>2022 - 2024</i>
Completed data-driven research on travel networks & infectious diseases.	

REFERENCE

Reference as request