

CODY HOU

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SUMMARY

- **Data Analyst** with proven expertise in building **scalable ETL/ELT pipelines**, cloud-based data architectures, and high-performance analytics platforms across energy, finance, and public health sectors.
- Experienced in **SQL, Python, dbt, Spark, and Databricks**, with strong proficiency in **Snowflake, BigQuery, and Redshift** for data modeling, transformation, and performance optimization.
- Skilled in designing **data workflows and orchestration** using Airflow and Dagster, ensuring reliability, automation, and compliance across enterprise and government environments.
- Passionate about leveraging **cloud platforms (AWS, GCP, Azure)** and modern DevOps practices (Docker, Kubernetes, GitHub Actions, GitLab CI/CD) to enable **scalable, secure, and production-ready data infrastructure**.

SKILLS

Languages: Python, SQL, R, Bash.

Data Storage: BigQuery, Databricks, Redshift, Snowflake.

ETL & ELT: dbt, Fivetran, Spark.

Workflow Orchestration: Airflow, Dagster.

Cloud Platforms: AWS, Azure, GCP.

Containerization: Docker, Kubernetes.

Data Visualization: Power BI, Tableau.

Version Control & CI/CD: Git, GitHub Actions, GitLab CI/CD.

WORK EXPERIENCE

Data Analyst

Jun 2025 – Aug 2025

Renox Technologies

Full-Time

- Built end-to-end **ETL** pipelines integrating data from **AWS Redshift**, SCADA systems, and RESTful APIs into centralized reporting platforms, enabling automated KPI tracking and advanced analytics.
- Designed and automated Python-based data workflows to simulate PV + battery systems, validating results against actual site performance to calculate and benchmark Performance Ratio (PR), with full **version control** and **CI/CD** automation managed in **GitLab**.
- Developed and maintained reports and dashboards, delivering data-driven insights on energy storage solutions, cost savings, and ROI to support customer decision-making.
- **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.

Analytics Engineer

Mar 2025 – Present

Upwork

Remote

- Engineered and deployed cloud-based data pipelines using **dbt**, **Google BigQuery**, **Snowflake**, and **Databricks**, with **GitHub Actions** for CI/CD, transforming raw transactional data into structured analytics models to enable actionable insights for clients.
- Developed and executed automated data tests and documentation practices to ensure data integrity, reliability, and model transparency.
- **Key Achievements:**
 - * Successfully transformed and modeled over 1 million rows of transactional data across multiple platforms, improving reporting efficiency and data accessibility.
 - * Reduced manual data processing time by 40% through automation and streamlined multi-cloud workflows.
 - * Enhanced data quality and reliability by implementing comprehensive testing, validation, and documentation procedures.

Data Consultant

Dec 2024 – Feb 2025

Centauri Alpha

Remote

- Designed and implemented custom analytics solutions using **BigQuery**, **dbt**, **Power BI**, and **Python** to help small businesses optimize decision-making.

- Developed predictive models and interactive dashboards, leveraging **dbt** for data transformations and **BigQuery** for scalable data warehousing.
- Automated **ETL/ELT workflows**, improving data processing speed, data quality, and reproducibility.
- Collaborated with marketing and finance teams to define **KPIs** and deliver dashboards that supported strategic business growth.
- Analyzed complex, multi-dimensional datasets to generate actionable insights for client acquisition and retention strategies.
- **Key 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

The University of Queensland

Jun 2024 – Oct 2024

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.

CERTIFICATION

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|---|------------|
| Databricks Fundamentals | Credential |
| DataBricks | Mar - 2025 |
| dbt Fundamentals | Credential |
| Linkedin | Feb - 2025 |
| Atlassian Agile Project Management Professional Certificate | Credential |
| Atlassian | Mar - 2025 |

EDUCATION

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