

Ryan Heng

Data Scientist | Engineer | Analyst

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Singapore

Professional Summary

Data Scientist with hands-on experience in Python, SQL, and ML for data analysis, forecasting (ARIMA, LSTM), and ETL pipeline development. Proven ability to deliver actionable insights and build scalable data solutions in cross-functional environments.

Work Experience

- **Data Science Intern** - Sanofi Manufacturing, Singapore
May 2025 - Apr 2025, (1 Year Contract)
 - Designed and deployed ETL pipelines for process monitoring, reducing reporting time of business analytics by 40%
 - Implemented ARIMA models to detect anomalies in manufacturing data, improving early fault detection by 50%
 - Collaborated with cross-functional teams to integrate data sources into a unified dashboard to visualize analytics and facilitate decision-making
- **Data Engineering Intern** - Power Hydraulics, Singapore
Mar 2023 - Aug 2023 (6 Mths Contract)
 - Calibrated PLC logic and automated control systems, improving equipment response reliability by 65%
 - Configured sensor and equipment data pipelines for vessel systems, enabling real-time monitoring through stream processing
 - Wrote, maintained and improved MATLAB and Python scripts for automated test data analysis, boosting performance tracking efficiency by 30%

Skills

- **Programming:** Python, MySQL, NoSQL, HTML/CSS, Bash, VBA, SOLID
- **Data Science:** Machine Learning, Deep Learning, Statistical Analysis, Data Visualization
- **Version Control:** Git, GitHub, CI/CD
- **Data Engineering:** ETL, Spark, Kafka, Airflow, Snowflake, Databricks, APIs, Docker
- **Process Engineering/IoT:** MATLAB, AutoCAD, real-time communication, sensor integration

Awards

- Wilmar International Scholar 2023

Projects

- **Smart MFG OEE analysis** (Sanofi)
 - Developed a solution to calculate Overall Equipment Effectiveness (OEE) from manufacturing data
 - Automated data ingestion, KPI calculations and exported results for visualization, enabling improved production efficiency insights
 - **TechStack - Python, SQL, Jupyter Notebook**
- **Crypto Market Data Pipeline**
 - Built a data pipeline with anomaly detection and forecasting models (ARIMA, LSTM) to predict price movements
 - Integrated Slack alerts for anomaly notifications
 - **TechStack - Pandas, Numpy, TensorFlow, PyTorch, Statsmodels, Airflow, PostgreSQL, Docker, Slack API**
- **Image Classifier with CNN & Regression Model for Data Prediction**
 - Developed deep learning models for classification and regression, including image and tabular data tasks, with custom dataset handling
 - Performed comparative analysis of neural network architectures, optimization techniques, and evaluation metrics.
 - **TechStack - PyTorch, TensorFlow, Scikit-Learn, NumPy, Pandas, Matplotlib**

Education

- **BEng Chemical Engineering Specialised in Data Engineering (2nd Upper Honours)** - Singapore Institute of Technology-Technica University of Munich, Singapore

Languages

- English (Fluent)
- Mandarin (Professional Proficiency)