Kuan-Wei (Rome) Lin

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PROFESSIONAL SUMMARY

Data Engineer with hands-on experience building end-to-end data pipelines, ETL workflows, and real-time analytics using AWS, Snowflake, Python, and Airflow. Strong background in machine learning, BI reporting, and cross-functional collaboration with proven impact in supply chain, manufacturing, and customer analytics.

EDUCATION

University of Washington, Seattle

Master of Science in Information Management | Sep 2021 – Jun 2025
- Specialization: Data Science & Business Intelligence
- Certifications: AWS Certified Cloud Practitioner, Lean Six Sigma Green Belt

Bachelor of Arts in Business Administration | Sep 2017 – Mar 2021
- Specialization: Supply Chain Management & Finance

TECHNICAL SKILLS

- **Programming & Analysis**: Python (Pandas, NumPy), R, SQL, Excel (VBA/Macros)
- **Data Visualization**: Tableau, Power BI
- **Cloud & Data Engineering**: AWS (S3, Redshift, Lambda), Azure (Data Factory, Synapse), Snowflake
- **ETL & Workflow**: Apache Airflow, Docker
- **ML & Statistics**: Scikit-learn, TensorFlow, A/B Testing, Time-Series Forecasting
- **Languages:** Mandarin (Native), English (Fluent), Japanese (Beginner)

PROFESSIONAL EXPERIENCE

Data Engineer Intern – PitchBook | Sep 2024 – Jun 2025
- Built a modular GitLab repository with data cleaning and GPT-powered feedback labeling modules, automating customer issue classification.
- Fine-tuned GPT prompting strategies, achieving 92% classification accuracy in customer feedback labeling.

Data Engineer Intern – Taiwan Semiconductor Manufacturing Company (TSMC) | Jun 2024 – Sep 2024
- Developed RNN-based time series models to improve manufacturing cycle time forecasts, reducing error rates by 3%.
- Automated daily ETL pipelines (SQL, Python, Airflow), improving feature extraction efficiency by 20%.

Industrial Engineer – Micron Technology, Inc. | Aug 2022 – Aug 2023
- Analyzed semiconductor manufacturing data using Python (Pandas) and SQL, driving $10M capital expenditure savings.
- Led capacity planning and capital investment strategies for CMP tools, optimizing machine utilization across Taiwan fabs and contributing to $5M in cash flow improvements in FY23.
- Leveraged PDM, MES, and ERP systems to manage capacity planning and purchase orders, ensuring on-time and efficient production.
- Facilitated two New Product Introduction (NPI) workshops to ensure timely new product launches and high-volume production.

Supply Chain Intern – Top Gear Leather Co., Ltd. | July 2020 – Sep 2020
- Analyzed production throughput using SQL and Power BI, reducing average lead time by one week by resolving two production bottlenecks.
- Expanded supplier network by onboarding two new vendors after evaluating cost, lead time, and quality.
- Forecasted raw material needs using Excel VBA and exponential smoothing, reducing error rates by 3%.

PROJECT EXPERIENCE

Real Estate Price Prediction – University of Washington | Sep 2024 – Feb 2025
- Designed and orchestrated Airflow-based ETL pipelines to extract, transform, and load housing data into Amazon S3.
- Deployed a FastAPI-based real-time prediction API on AWS EC2 and integrated it with a Streamlit frontend to deliver on-demand home valuations.

Retail Supply Chain BI System – University of Washington | Mar 2025 – Jun 2025
- Designed and implemented a retail-focused OLAP data warehouse using a star schema architecture in Snowflake to support scalable sales and product analytics.
- Developed SQL views and created Tableau dashboards to visualize sales trends and key product KPIs for business stakeholders.