

PEI-YU (Peggy) CHEN

Seattle, WA(open to relocate) | +1(949)4136587 | pchen35@uw.edu | [LinkedIn](#)

WORK EXPERIENCE

Economic Development Bureau

Taichung, Taiwan

EDB drives business growth in a city of 2.8 million, supporting 300,000+ businesses and attracting over NT\$60 billion in investment

Process Analyst, Industry Department

Jan 2023 – Mar 2024

- Optimized bureau workflow accuracy up 4% by identifying 29 underperforming districts, analyzing data with Excel PivotTables, and building 3 Tableau dashboards to support decision-making for stakeholders
- Developed an Excel-based risk tracking platform, enabling a timely response to 100+ threats by automating risk identification with IF and VLOOKUP and collaborating with the industry team to mitigate risks
- Increased the industrial production index by 2%, measured by identifying market threats and analyzing 4 key risk factors, using CASE function and CTEs in SQL to process big data and uncover actionable insights
- Reduced potential risk exposure by 10% by developing a Logistic Regression model in Python's scikit-learn and pandas, using feature selection and preprocessing to forecast risks for Taichung's Shopping Festival

Sheraton Hydropower Engineering Co., Ltd.

Taichung, Taiwan

partnership with Philips, provided sustainable energy solutions to 300+ clients, achieving 20 %+ energy savings per project

Sales Analyst, Sales Department

Jun 2021 – Sep 2022

- Increased lead-to-conversion rate by 10% by tracking 150+ sales leads and automating weekly delivery reports for 200+ orders, leveraging dplyr in R to build dynamic sales summaries for faster decision-making
- Increased quarterly sales by 3% by identifying key sales trends through regression analysis with TREND() and LINEST() in Excel and Python's Statmodels for data-driven optimization and promotional strategies
- Enhanced decision-making efficiency by 13% by predicting potential risks for the 2022 Taiwan Lantern Festival, using Python's matplotlib and seaborn to model key risk factors and visualize actionable insights
- Optimized operational profits by 5% by collaborating with Philips to identify risks, building logistic regression models using R's glm() and caret, and visualizing risk exposure with ggplot2 to drive data-informed decisions

PROJECT EXPERIENCE

Walmart Sales Forecasting Project, risk analyst

Jan 2025 – Mar 2025

- Enhanced time-series forecasting accuracy by achieving 2.2% MAPE using SARIMA in Python's Statsmodels, analyzing seasonality and long-term trends to improve demand forecasting and support inventory planning
- Optimized sales forecasting accuracy by achieving a 1.6% MAPE using Random Forest in Python's scikit-learn, enabling more precise inventory planning and pricing strategies that improved supply chain responsiveness
- Streamlined inventory planning by reducing processing time by 10%, leveraging stock level data, XGBoost, and ARIMA in Python to generate accurate demand forecasts and optimize replenishment strategies
- Developed 4 interactive Tableau dashboards to monitor real-time sales performance, enabling faster, data-driven decisions and improving reporting efficiency by 20% for cross-functional stakeholders' weekly update

Financial Transaction Project, financial analyst

Mar 2025 – Apr 2025

- Led customer segmentation and risk analysis for 10,000+ clients by engineering 10+ KPI features in SQL to uncover behavioral segments and visualized insights in Tableau, driving retention strategies and credit policy
- Built churn and fraud prediction models in Python, achieving 95.4% accuracy and 91% recall in churn prediction and fraud detection: optimized models with AUC threshold and improved risk intervention efforts
- Applied K-Means clustering and PCA to reduce feature dimensionality by 85% and used R's t-tests to analyze statistically significant differences in card lifecycle behavior, supporting data-driven product decisions

ACADEMIC BACKGROUND

University of Washington

SEATTLE, WA

Master of Science – Business Analytics

Jun 2024 – Jun 2025 (expected)

Coursework: Big Data Analytics (SQL, Python, R), Data Visualization (Tableau), Machine Learning

Feng Chia University

TAICHUNG, TAIWAN

Bachelor of Science - Department of Risk Management and Insurance

Sep 2019 – Jun 2023

SKILLS

- Technical: Tableau, Power BI, Python, SQL, R, Excel, ETL, Regression analysis, Forecasting models, JIRA
- Professional: Critical Thinking, Problem-Solving, Data-Driven Decision-Making, Communication