Shih-Yu (Zoe) Wang

Data Scientist | Data-Driven Problem Solver | ex-IBMer

(765) 413-1661
zoewang1379@gmail.com
linkedin.com/in/shih-yu-wang

SKILL

Programming: Python, C/C++, Java, R, SQL/NoSQL, HTML/CSS, JavaScript/TypeScript, Node.js, Git, GitLab
Software: Flask, Angular, React, Docker/K8s, MongoDB, MySQL, DB2, AWS, Azure, Minitab, SAS, Tableau, Microservices
Data: Machine Learning (Regression, Classification, Clustering), LLM, Web Scraping, Data Pipeline, BigQuery

WORK EXPERIENCE

Kearney   **Indiana, US**
Data Scientist (Industry Practicum)   Feb 2025 - May 2025
- Proposed data-driven sales strategies based on data mining technique and visualization with **Matplotlib**; Employed SQL, Python and Excel for data extraction and modeling, saving $6.9 million and projecting a 20% increase in profit
- Analyzed advertising activities using Python (Pandas, Numpy, TensorFlow); built **RNN** and **LSTM** models to forecast trend and evaluate performance to optimize investment by reducing 17% waste on ineffective advertising cost
- Developed web scraping scripts with **Selenium** tracing the price change and sales volume from different retailers and competitors to establish price strategies, generating 9% extra profit on normal day and 14% on deduction day

IBM   **Taiwan**
Application Developer   Sep 2023 - Aug 2024
- Created loan web applications for the Bank of Taiwan with **Angular, Spring Boot** and **DB2** as database, enhancing processing efficiency and reducing manual review time by 40%. The system expected to support over 4 million users
- Proposed a cross-border information sharing platform and global trading network for CTBC Bank, combined with WatsonX AI to assist bank staff, which is expected to generate a profit of approximately 25 million USD
- Established multi-method identity authentication function supporting 5 login ways; integrated with third-party providers such as government certificate issuers via secure file and data transmission protocol
- Led the cross-functional team in an **Agile** environment, managing project development, providing biweekly client reports on progress, and evaluating the feasibility of change requests, resulting 30% reduction in turnaround time
- Managed project with **GitLab**, implementing **unit tests** and **CI/CD** to ensure quality and reduce manual testing time

Advanced Network Technologies and Services Lab   **Taiwan**
Cybersecurity Engineer   Sep 2021 – Jun 2023
- Designed an **ensemble learning** method based on **Genetic Algorithm** to integrate antivirus inconsistent labels and re-cluster malware, providing trustworthy labeling with an accuracy of 83.6%, outperforming the baseline of 26.5%
- Architected malicious detect system in **Linux** environment, implemented an ETL to extract HTTP packet payloads, transform into Snort rules, and load into filtering engine, achieving 88% filtration for suspicious **network** packet

Synaptics   **Taiwan**
Software Engineer Intern   Jul 2022 - Dec 2022
- Developed **automated testing tools** with C++ on ODM docking products, reducing testing time by 20%
- Designed tools to **parse log** and generated debug messages for IC designers, improving 12% problem-solving time
- Analyzed end points usage data and diagnosed client issue for customers including Dell, HP, Lenovo, etc

Industrial Technology Research Institute   **Taiwan**
Big Data and AI Research Intern   Feb 2021 - Jul 2021
- Constructed an AI application with Python to optimize supply chain management and reduce manpower
- Optimized factory logistics by using **XGBoost** model to analyze data, reducing production capacity waste by 20%

PROJECTS

Natural Language Processing with Disaster Tweets   Feb 2025
- Conducted Natural Language Process (**NLP**) using tokenization and fine-tuned LSTM and **BERT** to determine the authenticity of disaster relative tweets, achieving 0.81 f1 on validate data and 84.1% accuracy on test data

Restaurant Search Website   Dec 2024
- Created a restaurant search website with **React** for the frontend, implemented **RESTful** APIs with **Azure Functions** for **serverless** architecture; Implemented **NoSQL** database using **MongoDB** to enable efficient geolocation queries

EDUCATION

Purdue University   **West Lafayette, IN**
M.S. Business Analytics and Information Management   Aug 2024 – Aug 2025

National Chengchi University (NCCU)   **Taiwan**
M.S. Management Information System   Sep 2021 - Jun 2023