

KAI-YIN CHAN

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TECHNICAL SKILLS

Programming Languages: Python (Pandas, NumPy, PySpark), R(ggplot, Tidyverse, Shiny), JavaScript, HTML

Databases: MySQL, SQL Server, PostgreSQL, TimescaleDB, MongoDB, Firestore

Cloud/Big Data Platforms: AWS (EC2, S3, Athena, DynamoDB, Glue), GCP, Databricks, Hadoop, Apache Spark, Apache Airflow

Data Visualization: Plotly, Streamlit, Tableau, Power BI, Excel

Other Tools: Docker, CI/CD Practices, Git

WORK EXPERIENCE

Ark Biotech | Boston, MA

May 2023 – August 2023

Software Engineer Intern

- Led data visualization and reporting enhancements by optimizing Python code and boosting dashboard efficiency with Streamlit, halving loading times
- Streamlined contamination resolution by leveraging SQL and Python for data analysis and visualization, enabling rapid problem identification and mitigation
- Bolstered system reliability by constructing a real-time alarm system with Databricks and TimescaleDB, ensuring swift responses to connectivity issues
- Optimized data analytics workflows by automating data integration using Databricks and Google Drive, elevating data accuracy and integrity

NEC Taiwan Ltd. | Taipei, Taiwan

October 2020 – April 2021

System Engineer

- Attained a 97% user satisfaction rate via troubleshooting SQL-based system issues and leading customer-focused educational initiatives
- Expedited project delivery time by 14% by integrating Agile methodologies and comprehensive documentation of system-related information
- Reduced system downtime by 10% by resolving data discrepancies in remote systems
- Coordinated with cross-functional teams to design, iterate, and deploy systems aligned with business objectives

Taipei Medical University Hospital | Taipei, Taiwan

July 2019 – August 2019

Data Science Intern

- Refined 2M+ patient records with strategic SQL for data cleaning, ensuring reliable inputs for analysis
- Constructed a Python Logistic Regression model using statistical methods to evaluate metabolic syndrome risk, guiding treatment decisions
- Co-developed an automated notification system for high-risk osteoporosis patients by applying Python and SQL, optimizing care efficiency

First Securities Inc. | Taipei, Taiwan

February 2019 – June 2019

Data Analyst Intern

- Engineered an R Shiny web application to expedite business intelligence processes by 15%, integrating in-depth statistical analysis and data visualization techniques
- Enhanced decision-making and report clarity by crafting Power BI dashboards and visualizations in collaboration with securities analysts

EDUCATION

University of Southern California | Los Angeles, CA

January 2022 – December 2023

Master of Science in Applied Data Science

Core Courses: Machine Learning, Data Mining, Database Systems, Research Methods and Analysis for User Studies

Fu Jen Catholic University | Taipei, Taiwan

September 2015 – June 2019

Bachelor of Arts in Economics (Minor: Statistics and Information Science)

PROJECTS

YouTube Video Trends Analytics

December 2023

- Created an automated ETL pipeline for YouTube analytics using Apache Airflow on AWS EC2, improving data process efficiency
- Managed large datasets with Amazon S3, providing scalable storage solutions for in-depth analytics
- Designed a Tableau dashboard for global insights into YouTube video trends, viewer engagement, and content popularity, driving data-driven decision-making

Sales & Customer Insights Dashboard

October 2023

- Orchestrated a comprehensive Business Intelligence solution using AWS (S3, Glue, Athena) and Tableau for e-commerce data analysis
- Identified and analyzed trends in e-commerce datasets, uncovering correlations and visualizing insights with charts

College Return on Investment

March 2022

- Achieved 90% user satisfaction with the development of a Streamlit-powered web application for collaborative college financial analysis
- Established a Firestore database architecture to optimize data management, leading to effective storage
- Integrated data sources to provide accurate and credible financial information, strengthening reliability and user trust

ACTIVITIES

USC Women in Engineering

February 2023 – December 2023

- Mentored female engineering students, offering professional, academic, and social support

2023 AthenaHacks - Hackathon

February 2023

- Collaborated with a team of three coders to develop an interactive web application using Plotly Dash, promoting sustainability and environmental awareness worldwide