KAI-YIN CHAN

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EDUCATION

University of Southern California | Los Angeles, CA — Jan 2022-Present
Master of Science in Applied Data Science

Fu Jen Catholic University | Taipei, Taiwan — Sep 2015-Jun 2019
Bachelor of Arts in Economics (Minor: Statistics and Information Science)

WORK EXPERIENCE

Software Engineer Intern, Ark Biotech | Boston, MA — May 2023-Aug 2023

- Delivered a 30% productivity boost, evidenced by reduced redundancies and accelerated workflows, by spearheading the development and maintenance of customized Python packages using GitLab version control
- Elevated user experience and data analytics efficiency, validated by halved page load times, by enriching real-time dashboard visualization and enhancing performance via code refactoring on Streamlit in an Agile environment
- Constructed an automated system to monitor device connections regularly, confirmed by the elimination of manual data extraction, by developing a real-time alarm system using Databricks and TimescaleDB
- Increased data accessibility, demonstrated by improved cross-team collaboration, by creating Databricks notebooks for efficient visualization and analysis of historical time-series data

System Engineer, NEC Taiwan Ltd. | Taipei, Taiwan — Oct 2020-Apr 2021

- Executed a 97% stakeholder satisfaction rate, verified by feedback following a product launch, by performing SQL analysis to optimize user interactions and streamline features based on data-driven insights
- Boosted project effectiveness by 30%, indicated by improved delivery timelines, by utilizing the principle of Iterative Feedback and Continuous Improvement in project management
- Employed solutions reducing system downtime by 25%, shown by operational availability, by identifying and resolving data discrepancies in remote systems

Data Science Intern, Taipei Medical University Hospital | Taipei, Taiwan — Jul 2019-Aug 2019

- Optimized data integrity of 300,000+ patient records, marked by accuracy and processing speed, by implementing advanced SQL workflows
- Derived a quantifiable risk metric, reflected in enhanced patient care protocols, by applying statistical tools and analyzing the risk of metabolic syndrome with second-generation antipsychotics
- Refined predictive models, seen in raised accuracy for osteoporosis and metabolic syndrome prediction, by examining cross-tables for applicable discoveries

Data Analyst Intern, **First Securities Inc.** | Taipei, Taiwan — Feb 2019-Jun 2019

- Designed a web app enhancing business intelligence, proven by a 15% increase in task completion speed, by leveraging an R Shiny platform with statistical analysis capabilities
- Visualized quarterly client investment patterns in charts and reports, observed through heightened specialist responsiveness to emerging trends, by utilizing the visualization capabilities of Excel and Power BI

PROJECTS

Sales & Customer Insights Dashboard (Skills: Python, AWS S3, AWS Glue, AWS Athena, Tableau) — Oct 2023

- Orchestrated an end-to-end data pipeline harnessing AWS services for data transformation and integration with Tableau
- Crafted an interactive Tableau dashboard for e-commerce data analysis, enabling data-driven decision-making

GreenTrace (Skills: Python, Dash) — Feb 2023

- Generated Dash-based interactive visualizations to analyze global CO2 trends, driving user environmental awareness
- Implemented personalized tools to compute individual carbon footprints, catering to distinct user preferences and behaviors

College Return on Investment (Skills: Python, Streamlit, Firestore) — Mar 2022

- Formed a Streamlit-powered web application with 4 interfaces for college financial analysis with 90% user satisfaction
- Established a database architecture employing Firestore to store 8 JSON datasets and a collection for user feedback

TECHNICAL SKILLS

Programming Languages: Python, R, JavaScript
Database Technologies: SQL (MySQL, SQL Server, PostgreSQL, TimescaleDB), NoSQL (MongoDB, Firestore)
Cloud And Big Data Platforms: AWS (EC2, S3, Athena, DynamoDB, Glue), Databricks, Spark, Hadoop
Data Visualization: Plotly, Streamlit, Dash, Tableau, Power BI
Other Tools: Docker, CI/CD, Git

ACTIVITIES

Mentor, **USC Women in Engineering** — Feb 2023-Present
Attendee, **2023 AthenaHacks - Hackathon** — Feb 2023