Jack(Yu-Ju) Tsai 蔡育儒

Data & Analytics Manager

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- 9+ years of experience in data science, data engineering, and machine learning.
- 3+ years of experience as a lecturer at Tamkang University.
- Good at translating business problems into practical and elegant data science projects, familiar with the domain knowledge in the telecommunications industry and social mobile applications.
- Led one data scientist to manage data for four products, each covering the data center, ads platform, marketing platform, and AWS data services, processing 40M records daily, maintaining a 99% service stability rate.
- Made US\$xxx,xxx in profits by selling 2 solutions to firms via a predictive model to provide insights into the current and foresee bandwidth bottleneck in communication in Huawei.
- Increased the satisfaction of application users by 60% via an anomaly detection algorithm for scammers and perverts.

Skills

Advanced

- R/ Python/ SQL / SAS
- Statistics / Machine Learning
- Metabase/ Superset/ Mode
- Presentation
- Intercultural Communication

Intermediate

- ❖ Tableau/ Power BI
- AWS/ GCP
- ETL Pipeline
- Apache Airflow/ Trinity
- Data Dog

Basic

- Azure
- Linux
- Docker
- Software engineering
- Big Data System Design

Experience

Data & Analytics Manager/ xxxxxx, New Taipei, Taiwan

OCT. 2021 - PRESENT

- Led 1 data scientist to enhance new user experience, achieving a 50% boost in approval rates, a 30% increase in make friends rates, and a significant 30% in D1 retention rate improvement. It was accomplished by Elo score calculation and optimizing the recommendation system for new user card stacks, prioritizing user-centric engagement.
- Led 1 DS to improve paid conversion rates by 300%. Identified crucial insights from the behavior of D0 users with key factors, and develop models for D1-D7 by using XGBoost, achieving 85% hit rate in the top 5% of users.
- Slashed the Legel team's workload by 80% through rapid comparison of specific information within 20M records and automated the generation of 5 topic files from 100M records.
- Streamlined marketing team's analysis time by 80% through managing 20M daily events from ads platforms and integrating an all-inclusive dashboard merging internal and external data sources.
- Avoided 99% of data loss by designing and contributing a streaming dashboard with quality control charts that allow us to monitor our four 3P data platforms.
- ❖ Gained US\$xx,xxx in compensation for the data issue provided by 3P data platform.
- Mitigated 30% of customer complaints and lowered app store bad reviews by 50% about scammers via identifying scammers with a dedicated machine learning model on 3 billion of data including user behaviors and IP information
- Led 1 data scientist handling 40M records per day from 5 different upstream databases.

Sr. Data Scientist

- Led 1 analyst to complete Data Lake migration within two months for data governance, from Redshift to Snowflake.
- Enhanced matching rates by 20% using a customized algorithm for user scoring.
- Reduced the number of alerts by 50% via re-designing data team infra and centralizing 56 ETL tasks.
- Monitored ETL tasks and 5 Snowflake environments by using Data Dog for the quality of the pipelines.
- Saved the analysis of time by 30% via designing and developing a user-friendly dashboard that offers a range of such products, user types, age groups, and countries for 4 products.
- Achieved an 83% accuracy rate within 3 days by developing advanced prediction tools, enabling C-level executives to

Sr. Data Scientist / xxxxxxxxxxxxxxx, Taipei, Taiwan

APR. 2019 - OCT. 2021

- Saved the working time of managers by 70% via predictive models to foresee the operation status of the company.
- Reduced the number of perverts by 50% via a predictive model in a random forest algorithm.
- Increased the total revenue by 10% by increasing the possibility of matching rates for VIP users with a customized algorithm.

Sr. Data Analyst / xxxxxxxxxxxxxxxxxxxx, Yangon, Myanmar

OCT. 2018 - APR. 2019

- Increased US\$8.81M revenues by selling hundreds of new products via a predictive GLM model with a log link to help customers foresee the communication bottleneck.
- Helped customers to increase their revenue by 160% by identifying the weakness of their communication products via data analysis.
- Gained US\$xxx,xxx in purchase orders by delivering 13 key KPIs in 1 month in cooperation with 2 interns to build an ETL pipeline to process 50 TB per day in 1 month to collect key variables for business

Data Analyst / xxxxxxx, Taipei, Taiwan

NOV. 2017 - OCT. 2018

- Reduced the Content Team working time by 70% via an auto-tagging system through more than 5,715 quiz content with word2vec and logit-regression.
- Increased the user usage rate by 300% via the recommended system of quizzes with personal discrimination and a learning map.
- Increased the total revenue by 16% via predictive models with 56 variables and logit regression.

DEC. 2015 - NOV. 2017

- Helped high-level management choose the list of cell sites by suggesting combining MKT and engineering concepts with calculated revenue and cell site capability.
- Retained 60% of expiring users by using 373 variables and 16 logit-regression models.
- Managed 12 people to complete the 1111 activities dashboard project, which is one of three big activities in the Telecommunications Industry, on time.

Awards Experience

Speaker / SatRday (First in Asia)

Oct. 2020

Trained more than 50 students during SatRday workshop by teaching R package Plumber. (Covert your results to a web API with R)

Lecturer / xxxxxxxx University

Aug. 2017

❖ Taught 200+ students in the Statistics and Accounting department about Data Visualization Exploration and Application of Internet Data, R language, and Data Mining.

Lecturer / Senheng Malaysia

Aug. 2017

Taught 120 employees from a Malaysian company to understand big data concepts and several ML projects within 2 days.

1st / 1st Taiwan R data analysis contest, 2014

July. 2014

Won 1st place out of 100+ teams in the Taiwan R data analysis contest by using parallel CHAID to fit more than 100 M rows with 82% accuracy.

Education

Master in Statistics / Tamkang University, Taiwan, 2014 - 07

- Completed a master's thesis entitled "Paralleled CHAID Decision Tree Algorithm with Big-Data Capability". Advisor: Ching-Hsiang Chen.
- Completed master's degree in one year with top honors in the statistics department, utilizing a special program and dedication. Top 1% of the statistics department.

Bachelor in Statistics / Tamkang University, Taiwan, 2013 - 07

♦ Top 5% of the statistics department.