# Te-Kai(Kelvin) Chou

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**EDUCATION** 

Georgia Institute of Technology

Atlanta, GA

Master of Science, Operations Research (Data Science Concentration)

*Aug.* 2021 — Dec. 2022

National Chiao Tung University (NCTU)

Hsinchu, Taiwan

GitHub: TeKaiChou

LinkedIn: TeKaiChou

• Completed 21 credits toward M.S. in Industrial Engineering and Management

Sep. 2020 — Jun. 2021

• Bachelor of Science, Industrial Engineering and Management | GPA: 3.74/4.0

Sep. 2016 — Jun. 2020

**WORK EXPERIENCE** 

BlueX Trade

Taipei, Taiwan

Jul. 2022 — Aug. 2022
Developed ETL pipelines using DBT and orchestrated tasks using Airflow with the data team to automate the SQL

- data manipulation process, creating savings of **1** manual hour daily
- Analyzed trends and forecasted future bank account balance of customers with seasonal decomposition and SARIMA model, boosting creditworthiness assessment effectiveness by 10%
- Deployed custom time series models to production with AWS SageMaker and ECR to assist the practical business decisions; reduced underwriting team response time to within 3 days
- Improved customer conversion rate by 2% by partnering with sales/marketing team for contact source distribution and marketing funnel analysis through SQL and Tableau visualization reports

# NCTU Supply Chain Management Lab Undergraduate Research Assistant

Hsinchu, Taiwan

Sep. 2018 — Jun. 2019

- Partnered and formulated problems with clients and team members in project planning, development, and execution
- Shortened defects detecting process time by **50**% and identified the types of defects on panels by building decision tree models and engineering image features with GLCM using Numpy and OpenCV

## **TECHNICAL EXPERIENCE**

#### **Next Meme Stocks Forecast**

Jan. 2022 — May. 2022

- Built a web scraper in Python to retrieve 10+ million social media posts/comments of 2021 from Reddit and Twitter, and used NLP techniques for sentiment analysis and stock ticker symbol extraction
- Resolved imbalanced data model evaluation with macro F1 score metric and achieved 78% on macro F1 score of logistic regression model by tuning classification threshold

# **News Recommender Engine**

Aug. 2021 — Dec. 2021

- Aggregated and prepped news data using Pandas from 4 independent news sources into Python SQLite database and extracted news information through NLP techniques
- Developed a news recommender engine with an 85% average matching rate by applying a combined content-based filtering algorithm with TF-IDF and Word2Vec

## **CAPTCHA Identification System**

*Mar.* 2021 — *Jun.* 2021

- Increased web scraping process speed by 10 times by developing an automatic digit/letter identification system with CNN and RNN models using Pytorch
- Enhanced the recognition accuracy by 15% by implementing image noise reduction using NumPy and OpenCV

#### **LEADERSHIP & ACTIVITIES**

## NCTU Cheerleading - Course Coordinator

Sep.2017 — Jun. 2018

- Managed a club of 50+ members and scheduled progress weekly, saving average preparation time by 1 week
- Boosted exposure and the number of commercial performances by 20% by collaborating with other cheerleadings

### **SKILLS & CERTIFICATIONS**

Certifications

AWS Certified Cloud Practitioner (CCP)

Programming & tools Data Science Python, R, SQL; MS Office, Tableau; PySpark, Snowflake, AWS; DBT, Docker, Git, Linux Machine Learning, Deep Learning, Regression Analysis, Data Mining, Statistical Methods, Data Visualization, Database Management, Big Data, Natural Language Processing (NLP)