

Jay Chiehen Liao

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4+ years of experience in **Data Science & Machine Learning** • Proficient in **Python & R** programming • 10+ **AI/ML competitions**
6+ years of experience in **Data Analysis & Statistics** • **Git, Linux, GPU, GCP** • 10+ academic presentations in various domains •
Skilled in communication, model explanation, and problem-solving • **Interdisciplinary** backgrounds

WORK EXPERIENCE

FAZZ FINANCIAL GROUP

DATA SCIENTIST (FULL-TIME)

Sep 2022 - present | Taipei, Taiwan (Hybrid)
- Focus on reconciliation and fraud & anomaly detection.
- Help increase anomaly detection performance by 25%.

NETWORKS & AI LAB, NCKU

RESEARCH AND TEACHING ASSISTANT (PART-TIME)

Aug 2020 - present | Tainan, Taiwan (Hybrid)
- Research topics: Machine learning with graphs, graph neural network (GNN), deep learning for tabular data.
- Managed **Linux** servers with **GPUs**.

HEALTH BEHAVIOR LAB, NCKU

RESEARCH AND TEACHING ASSISTANT (PART-TIME)

Jan 2017 - Jul 2020 | Tainan, Taiwan
- Data analysis with **R** & **Python** for 5+ projects.

EDUCATION

RENNES SCHOOL OF BUSINESS (RSB)

MASTER IN DATA & BUSINESS ANALYTICS

Sep 2021 - Apr 2022 | Rennes, France

NATIONAL CHENG KUNG UNIVERSITY (NCKU)

MASTER IN DATA SCIENCE (GPA=4.25/4.30)

Aug 2020 - Jul 2022 (expected) | Tainan, Taiwan
- The 1st Place, Academic Performance of The 1st Year
- Thesis: *Learning Graph Structures from Tabular Data for Downstream Classification Tasks*

DOUBLE BACHELOR IN STATISTICS AND PSYCHOLOGY

Sep 2015 - June 2020 | Tainan, Taiwan

SKILLS

TECHNICAL SKILLS

PROGRAMMING Python • R **VERSION CONTROL** Git
MACHINE LEARNING PyTorch • Scikit-Learn
GRAPH NEURAL NETWORK NetworkX • PyTorch-Geometric
DATA MANIPULATION dplyr • NumPy • Pandas
DATA VISUALIZATION ggplot2 • Matplotlib • Seaborn
DATA MANAGEMENT MySQL **CLOUD COMPUTING** GCP
DEVELOPMENT ENVIRONMENT VS Code • Jupyter • RStudio
MARKUP LANGUAGES Markdown • R Markdown • \LaTeX
OPERATION SYSTEMS Linux • macOS • Windows

LANGUAGES

ENGLISH TOEIC 925/990 **MANDARIN/CHINESE** Native

KEY PROJECTS & AWARDS

Predictive Modeling for 14-day Unplanned Hospital Readmission Risk by Using Machine Learning Algorithms BMC MEDICAL INFORMATICS AND DECISION MAKING (2021)

- Constructed ML models with promising performance to predict patients' readmission.
- Figured out influential features with model explanations.
MY ROLES: Co-first author of the paper • Model constructor
SKILLS USED: **Python** • **Catboost** • **Feature Engineering**

A Mobile App (UPrEPU) to Monitor Adherence to Pre-Exposure Prophylaxis in Men Who Have Sex with Men: A Protocol for a User-Centered Approach Mobile App Design and Development

THE JMIR RESEARCH PROTOCOLS (2020)

MY JOBS: Conveyed public health rules with pseudo-codes to communicate with development engineers • Data cleaning
SKILLS USED: **Pseudo-code** • **Python** • **R**

TOP 1 out of 401 teams

CHUNGHWA POST BIG DATA COMPETITION 2019

- Established ML models and proposed commercial solutions from the big data (>30GB) to reduce failed delivery rate (reduced about 65% eventually).
- Evaluated the proposed system in terms of ML performances, flexibility, and estimation of cost reduction (USD 376K and 44.8K hrs per year in Taipei City).

MY ROLES: **Leader** • **Model constructor** • **Presenter**

SKILLS USED: **Python** • **R** • **GBDT** • **Visual machines**

TOP 3 out of 859 teams

RECOMMENDATIONS OF CREDIT CARD SPENDING

CATEGORIES 2021 (E.SUN BANK)

SKILLS USED: **Python** • **Transformer** • **GBDT**

TOP 25%

AI CUP FALL 2020 - MEDICAL INFORMATION

DE-IDENTIFICATION (DEPT. OF COMPUTER SCIENCE AND INFORMATION ENGINEERING, NCKU)

SKILLS USED: **Python** • **NLP** • **Transformer**

EXCELLENT AWARD **CERTIFICATE OF STATISTIC ANALYSIS (THE CHINESE APPLIED STATISTICS ASSOCIATION)**

ADVANCED AWARD (TOP 3%) **COMPETITION OF STATISTICS (NCKU)**