

# Jay Chiehen Liao

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3+ years of experience in **Data Science & Machine Learning** • Proficient in **Python** & **R** programming • 10+ **AI/ML competitions**  
5+ 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

## 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 (outgoing aboard in the 2nd year)
- Thesis: *Learning Graph Structures from Tabular Data for Downstream Classification Tasks*

#### DOUBLE BACHELOR IN STATISTICS AND PSYCHOLOGY

Sep 2015 - June 2020 | Tainan, Taiwan

## WORK EXPERIENCE

### FAZZ FINANCIAL GROUP

#### DATA SCIENTIST

Sep 2022 - present | Taipei, Taiwan (Hybrid)

### NETWORKS & AI LAB, NCKU

#### RESEARCH AND TEACHING ASSISTANT

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

Jan 2017 - Jul 2020 | Tainan, Taiwan

- Data analysis with **R** & **Python** for 5+ projects.

## 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**

DEVELOPMENT ENVIRONMENT **VS Code** • **Jupyter** • **RStudio**

MARKUP LANGUAGES **Markdown** • **R Markdown** • **LaTeX**

CLOUD COMPUTING **Google Cloud Platform**

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** • **R** • **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)