

# Jay Chiehen Liao

M: +886-988818967 | [jay.chiehen@gmail.com](mailto:jay.chiehen@gmail.com) | [github.com/jayenliao](https://github.com/jayenliao) | [rpubs.com/d920056](https://rpubs.com/d920056)

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

- Graduation Project: *Using Text Analysis to Explore the Role of Standard Essential Patents in Information and Communication Technologies and Artificial Intelligence*

### NATIONAL CHENG KUNG UNIVERSITY (NCKU)

#### MASTER IN DATA SCIENCE (GPA: 4.25/4.30)

Aug 2020 - Jul 2022 (expected) | Tainan, Taiwan

- The 1<sup>st</sup> Place, Academic Performance of The 1<sup>st</sup> Year
- Thesis: *Learning Graph Structures from Structured and Unstructured Data for Downstream Tasks*

### DOUBLE BACHELOR IN STATISTICS AND PSYCHOLOGY

Sep 2015 - June 2020 | Tainan, Taiwan

## WORK EXPERIENCE

### 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

- Research topics: Social networks & sexually transmitted infections, health behavior interventions with technology, adolescent mental health.
- Data analysis with [R](#) & [Python](#) for 5+ projects.

## SKILLS

### TECHNICAL SKILLS

PROGRAMMING [Python](#) • [R](#)

MACHINE LEARNING [PyTorch](#) • [Scikit-Learn](#) • [NumPy](#)

GRAPH NEURAL NETWORK [NetworkX](#) • [PyTorch-Geometric](#)

DATA VISUALIZATION [ggplot2](#) • [Matplotlib](#) • [Seaborn](#)

DATA MANAGEMENT [MySQL](#) VERSION CONTROL [Git](#)

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 2022 (E.SUN BANK)

SKILLS USED: [Python](#) • [R](#) • [GBDT](#) • [Time Series](#)

### TOP 8

#### BUSINESS MODEL AND BIG DATA ANALYSIS ARTIFICIAL INTELLIGENCE COMPETITION 2020 (TAISHIN BANK)

MY ROLES: [Data analyst](#) • [Presenter](#)

SKILLS USED: [Python](#) • [R](#) • [Xgboost](#) • [GNNs](#)

### TOP 25%

#### AI CUP FALL 2020 - MEDICAL INFORMATION DE-IDENTIFICATION (CSIE, NCKU)

SKILLS USED: [Python](#) • [NLP](#) • [Transformer](#)

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

**ADVANCED AWARD** COMPETITION OF STATISTICS (NCKU)