Jay Chiehen Liao

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3+ years of experience in **Data Science** & **Machine Learning** • 5+ years of experience in **Data Analysis** & **Statistics**
Proficient in **Python** & **R** • 10+ AI & big data competitions • 10+ academic presentations in various domains

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 1st Place, Academic Performance of The 1st 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
- Figured out the research problem, established ML models, and proposed commercial solutions from the big data (>30GB).
- Provided detailed evaluation of models, system flexibility, and estimation of cost reduction.

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 | **Commercial Big Data 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)

REFERRERS

Anke Piepenbrink, PhD, Dr. rer. nat. Associate Professor, Strategy and Innovation, RSB. anke.piepenbrink@rennes-sb.com
Cheng-Te Li, PhD, MS Associate Professor, Institute of Data Science, NCKU. chengte@mail.ncku.edu.tw
Carol Strong, PhD, MPH Associate Professor, Department of Public Health, NCKU. carol.chiajung@gmail.com