Ming-Han Li

✉ liminghan045@gmail.com | 🏠 hanklitw.github.io | 🔗 ming-han-li-6b7797216 | 🐙 HankLiTW

Research Interests

Probability Theory, Microeconomics, Game Theory, Decision Theory, Mathematical Finance, Econometrics

Education

National Chengchi University(NCCU)   *Sep. 2018 - Jan. 2023*
B.S. in Statistics, B.A. in Economics   *Taipei, Taiwan*

- GPA: overall: **4.20/4.3, 3.97/4.0** (summa cum laude)
- Honors: <u>Academic Achievement Awards</u> * 4(Fall '19, Spring '20, Fall '21, Spring '21)
- Certified in **Mathematical Finance Program** (required courses from Math, Economics, Statistics and Finance)

Selected Projects

Predicting Unemployment Rates during Covid-19 🐙   *Feb. 2021 - June 2021*
Term Project for Econometrics(II)

- Aimed at investigating the impact of lockdown policies and Covid-19 death toll on the unemployment rate.
- Developed an AR and DID model using R to predict unemployment rates during Covid-19.
- Performed optimal model selection by R-Squared and Bayesian Information Criterion (BIC).

Predicting Bank Defaulting Clients with Logistic Regression 🐙   *Feb. 2021 - June 2021*
Term Project for Multivariate Analysis

- Built logistic regression models in SPSS to predict bank defaulting clients.
- Improved 13.24% accuracy by feature engineering on financial variables.
- Evaluated model performance using R-squared, Hosmer and Lemeshow Test, and Wals test.

Estimating GNP with Linear Regression   *Feb. 2020 - June 2020*
Term Project for Linear Regression

- Developed a regression model in SAS to estimate Gross National Product (GNP) for 106 countries.
- Performed data integration and cleaning from 10 governmental websites.
- Conducted residual examination and lack-of-fit test and reached 93.52% R-Squared.

Explained and Built Gradient Descent Algorithm in R 🐙   *Feb. 2020 - June 2020*
Term Project for Programming and Statistical Software

- Explained the rationale of the gradient descent algorithm and its improved version like Adam, Adagrad & Momentum.
- Implemented gradient descent algorithm in R on custom multivariate functions.

Work Experience

Machine Learning Intern   *July 2020 - August 2020*
Shanghai Far Eastern IT Co., Ltd   *Remote*

- Built up a client ranking system to predict potential defaulting clients in Python.
- Achieved 0.76 AUC with probabilistic and machine-learning models.
- Implemented a GUI allowing quick prediction on new incoming data.

Courses (graduate level courses in bold)

Economics & Finance	**Econometrics(I)**(II), Microeconomics, Game Theory, Choice under Uncertainty, Financial Derivative
Mathematics	**Probability and Measure Theory**, **Real Analysis**, Differential Equation, Advanced Calculus
Statistics	**Advanced Mathematical Statistics**, **Categorical Data Analysis**

Skills

Programming and Software	Python, SAS, R, SPSS, LaTex
Languages	Mandarin (native), English (fluent, TOEFL: 98 (Best Score: 101))