Yu-Chieh Jesse Kuo

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Education

National Taiwan University Taipei, Taiwan

B.B.A. in Information Management; ***GPA: 3.98/4.30*** *September 2018 – June 2023*

- **Ph.D. Economics Courses:** Microeconomic Theory, Econometrics Theory (Python, R), Computational Methods for Econometrics (Python, R, Stata), Economic Analysis of Social Networks (Python, R), Topics in Econometrics.
- **Ph.D. Business Courses:** Information Economics, Platform Strategy, Game-Theoretic Approach Marketing.
- **Computer Science Courses:** Introduction to Text Mining (Ph.D. level; Python), Machine Learning (Ph.D. level; Python), Data Structure and Advanced Programming (C++, Python), The Design and Analysis of Algorithms (Python), Database Management (SQL), System Analysis and Design, Computer Networks and Applications.
- **Mathematics Courses:** Calculus, Statistics, Advanced Statistics (Ph.D. level), ODE/PDE, Linear Algebra, Operations Research (Python), Convex Optimization (Ph.D. level; Python).

Research Experience

Department of Economics, National Taiwan University

Research Assistant to Professor ***Chih-Sheng Hsieh*** *and Professor* ***C.Y. Cyrus Chu*** *June 2022 – Present*

- Organized over 500 suspicious celebrities related to the MeToo movement and collected suspects' characteristics and searching records from Google Trends to build a complete 2-year panal data.
- Used a statistical estimation model to calibrate the normalized raw data from Google Trends to enable further analysis.
- Analyzed the effect of certain big events and spillover effects in the MeToo movement by implementing the regressions.
- Conducted and visualized a large-scale networks from 14GB Taiwanese companies' dataset with millions of entries.
- Conducted several literature reviews of corporate finace applying social network analysis to improve further research.

Department of Information Management, National Taiwan University

Research Assistant to Professor ***Chih-Ping Wei*** *June 2022 – Present*

- Conducted literature reviews in economics, management, and financial applying sentiment analysis.
- Organized literature in topics, data sources, and other fields to better leverage sentimental analysis approachs.

Independent Research

Online Learning Behavior, Peer Effects, and Education

Term Project for Economics Analysis of Social Networks *Spring 2022*

- Proposed an interdiscinpling research combining economics, computer science, education, and learning science.
- Surveyed 40 literatures over three different fields to establish the research objectives, impacts, and methedologies.
- Sought the collaboration positively with NTU COOL, an online platform providing professors and students at National Taiwan University to hold courses and learn online, to obtain large-scale online behavior data.

Political Sentiment Analysis: A Survey of U.S. Media's Attitude toward China Before and after the Presidential Election

Term Project for Introduction to Text Mining *Fall 2021*

- Proposed 3 research questions and directions after surveying 5 literature regarding sentimental analysis on economics.
- Studied and compared the performance of sentence embeddings from different natural language analysis and sentiment analysis packages and methods to determine the package to use.
- Explored and compared the text's cosine similarity with TF-IDF and word embeddings from pre-collected 6000 tweets.

Online-Offline Retailing Cooperation with BOPS Scheme under Price Competition

Term Project for Information Economics *Spring 2021*

- Surveyed 5 papers related to the topics of coopetition between retailers, and online-offline relationship, especially the adoption of the BOPS (Buy Online and Pick up in-Store) strategy.
- Formulated a game-theoretic model to analyze the cooperation relationship between online and offline retailers.
- Discussed the firm's efficiency and incentive compatibility to derive the conditions for successful cooperation.

Skills

Programming: Python, R, Stata, shell scripts, SQL, C++, Git/Github, Markdown, LaTeX.
Python Package: Numpy, Pandas, Matplotlib, Tensorflow, Torch, nltk, Sklearn, Scipy, Statsmodel, BERT, pytrends, cvxpy, gurobi, NetworkX.
Languages: Chinese(Mandarin), Taiwanese, English.