Yu-Chieh Jesse **Kuo**

MOVE FORWARD TO BECOME AN OUTSTANDING RESEARCHER

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Summary

I am an undergraduate student majoring in Information Management at National Taiwan University. My research interests span economic analysis of social networks, quantitative and theoretic marketing, and computational social science. Currently, I am fortunate to work with Professor Chih-Sheng Hsieh on the network analysis of the MeToo movement and corporate finance, and Professor Chih-Ping Wei on the sentiment analysis of economics. Previously, I worked with Professor Lin-Shan Lee on project management.

Education

National Taiwan University (NTU)   *Taipei, Taiwan*

B.B.A. IN INFORMATION AND MANAGEMENT   *2018 - Exp. 2023*

- **Overview GPA: 4.06/4.3**
- **Selected courses:**
  Programming: Programming Design, Data Structure and Advanced Programming, Database Management, System Analysis and Design, Introduction to Text Mining(Graduate level), Machine Learning(Graduate level).
  Mathematics: Calculus, Statistics, Engineering Mathematics, Linear Algebra, Operations Research, Convex Optimization(Graduate level).
  Economics and Management: Introduction to Information Management, Business Management, Information Economics(Graduate level), Microeconomic Theory I(Graduate level), Platform Strategy(Graduate level), Computational Methods for Econometrics(Graduate level), Economic Analysis of Social Networks(Graduate level), Topics in Economics and Econometrics(Graduate level), Marketing Models: Game-Theoretic Approach(Graduate level) .

Research/Teaching Experience

Research Assistant   *Dept. of Economics, NTU*

WORKED WITH PROF. CHIH-SHENG HSIEH AND PROF. C. Y. CYRUS CHU   *June 2022 - Present*

- Organized over 500 suspicious celebrities related to the MeToo movement and collected searching records from Google Trends to build a complete 2-year panal data.
- Calibrated the normalized raw data from Google Trends using a statistical estimation method to enable further analysis.
- Designed and implemented the regressions to analyze the effect of certain significant events and spillover effects in the MeToo movement.
- Organized a large-scale Taiwanese companies' dataset with millions of entries.
- Surveyed tens of papers applying social network analysis on corporate finance and summarized the content of papers.

Research Assistant   *Dept. of Information Management, NTU*

WORKED WITH PROF. CHIH-PING WEI   *July 2022 - Present*

- Surveyed tens of economics, management, and financial paper applying sentiment analysis.
- Organized papers in topics, data type, data sources, and other fields.

Teaching Assistant   *Operations Research, NTU*

WORKED WITH PROF. LING-CHIEH KUNG   *Mar. 2022 - June. 2022*

- Verified 3 assignments, 2 case studies, and the final exam and wrote 6 corresponding solutions with the rigorous mathematical statement and one additional assignment writing guidance to help and encourage students.
- Built a course-oriented LaTeX class file and corresponding document to modularize and accelerate the file writing process.
- Graded over 300 assignments and 100 exam papers in a few days and managed grades for 100 enrolled students.
- Summarized precautions and details for the TA's work of this course in a handover document to help the TA in the future.

Course Research Projects

Online Learning Behavior, Peer Effect, and Education   *Economic Analysis of Social Networks*

AUTHOR   *Spring 2022*

- Proposed a noval and interdiscipling research combining economics, computer science, 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.

Modeling the Optimal Vehicle Scheduling for YouBike2.0 for NTU Campus   *Operations Research, NTU*

AUTHOR, TEAM LEADER & PRESENTER   *Spring 2020*

- Modeled the optimal vehicle schedule route for in-campus shared bycicles by liear and integer programming and graph theory.
- Designed the algorithm to implement the optimization problem and visualized the optimal routes.
- Served as the project leader and assigned works and due time properly.

Online-Offline Retailing Cooperation with BOPS Scheme under Price Competition
Information Economics, NTU

Co-Author & Presenter
Spring 2021

- The academic-oriented term project in the course Information Economics, advised by Professor Ling-Chieh Kung.
- Formulated the relationship above using a game-theoretic model and found out that cooperation might not always succeed even if both retailers might benefit from cooperation.
- By discussing the efficiency and incentive compatibility issues to derive the conditions for successful cooperation.
- First attempt to write an academic paper and make a presentation slide with LATEXformat merely.

Political sentiment analysis based on social media: U.S. media surveys attitude toward China before and after the presidential election
Introduction to Text Mining, NTU

Co-Author
Fall, 2021

- The term project in the course Introduction to Text Mining, advised by Professor Chien-Chin Chen.
- Use

Forecasting the components consume based on real data and providing business solutions
IM Freshmen Project, NTU

Author & Team Leader
Fall 2020

- The term project in the course IM Freshmen Project, advised by Professor Ling-Chieh Kung and Professor Chien-Chin Chen.
- Implemented ML algorithms such as Linear Regression, Random Forest, Gradient Boosting Regression to forecast the components consume.
- Analyzed the company strategy and constructed business solutions against problems we found in this project.
- Assigned works properly and maintain reasonable loads to teammates, optimized workflow by pulling in productive tools such as git, hackMD to track everyone's contribution, and writed the report and do the presentation.

Developing an after-death-mail web-service with information-encryption based on block chain
IM undergraduate Project, NTU

Front-end Engineer
Jan. 2021 - Exp. Dec. 2021

- The undergraduate project for students in the NTU IM, advised by Professor Chen-Chu Tsao. Co-worked with 4 teammates in the NTU IM.
- Checked feasibility of the service, evaluated platform strategies, and established potential business model.
- Involved skills such as Javascript (espaecially React.js), HTML5, CSS3 to implement the front-end of website.

Extracurricular Activity

Director of Academic Department
NTUIM Student Association

At NTU Azalea Festival
2021, 2022

- Led a team of 5 members to survey 20 courses in the department and write a detailed introductory document over 5000 words to promote the department in the largest university expo.
- Established the key direction of introduction and adopted the agile development method to set targets and due time to secure the work progress.
- Provided a 5 minutes live presentation online based on the document.

Project Manager
Speech Lab, NTU

Worked with Prof. Lin-Shan Lee
Feb. 2019 - Dec. 2021

- Organized various data over thousands items for Professor Lin-Shan Lee's archive website and developed new contents.
- Communicated with 10 members and the professor and organized different tasks varying from website development to UI/UX design.
- Established and optimized the workflow by adopting productive tools such as Notion, CI/CD, Jira, etc.

Academic Mentor
Taipei, Taiwan

Collaborated with over 20 students and parents
Aug. 2018 - Present

- Guided over 20 students for 10 subjects to improve their grades from the average to the top 10 in class.
- Employed the communication skills with empathy to defuse the family crisis.

Skills

Programming	Python, C++, R, shell scripts
Language	Chinese(Mandarin), English
Soft Skills	Interpersonal coordination, Leadership, Curiosity, Passion, Task Management
Other	Git, LATEX