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.
- Collected and read 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*

- Collected and read 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

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

AUTHOR, TEAM LEADER & MAIN MODEL DESIGNER   *Spring 2020*

- The term project in the course Operations Research, advised by Professor Ling-Chieh Kung.
- Used the Linear Integer Programming and Graph Theory algorithm to model the optimal vehicle schedule route, designed the algorithm and implemented the algorithm by operations research tools, then visualized the result and constructed solutions.
- Assigned works properly and maintained reasonable loads to teammates, writed the report and do the presentation.

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 LaTeX format 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

Prof. Ling-Chieh Kung

Teaching Assistant for the course Operations Research *Mar. 2022 - June. 2022*

- Cooperated with 3 TAs to finish and deal with course-related issues.
- Detailedly examined each assignment and case study, and writed distinct and well-structured solutions with rigorous mathematical statement.
- Wrote a course-used LaTeX style file, managed teaching platform and solution-creating space to improve the efficiency, and optimize the workflow.

NTUIM Student Association

Director of the department of course introduction for NTU Azalea Festival, 2021 and 2022 *Dec. 2020 - Feb. 2021, Dec. 2021 - Mar. 2022*

- Led a team of 5 members, assigned members to proper works and supervised their progress.
- Constructed the main structure of course introduction, surveyed plenty of courses in NTUIM and wrote a majority of contents.
- Ensured the presentation is useful to high school students, attemptd to deal with the information asymmetric between department and high school students.

Skills

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