Jesse Yu-Chieh **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 in social network analysis, quantitative and theoretic marketing, information economics, and optimization problems. I am a lover for Vim, LaTeX, OS X and exploring high-efficient development environments. Previously, I serving as a project manager supervised by Professor Lin-Shan Lee and an undergraduate researcher supervised by Prof. Chen-Chu Tsao.

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, Introduction to Text Mining, Machine Learning(Graduate level)
  Mathematics: Operations Research, Statistics, Engineering Mathematics, Introduction to Mathematical Analysis, Linear Algebra, 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) .

Work Experience

Speech Lab, NTU   *NTU, Taiwan*

PROJECT MANAGER   *Feb. 2019 - Dec. 2021*

- Supervised by Professor Lin-Shan Lee. Organize all data for Professor Lin-Shan Lee's archive website and develop new contents.
- Schedule progress, assign works properly to other teammates and manage task-processing.
- Establish the work flow and optimize it by pulling in productive tools such as Notion, CI/CD, etc.

Home Tutor   *Taipei, Taiwan*

MENTOR FOR HIGH SCHOOL AND ELEMENTARY SCHOOL STUDENT   *Aug. 2018 - Present*

- Taught subjects such as math, science, Chinese, article writing to increase students' grades.
- Based on students' situation to adjust teaching method. Improved the academic performance, taught students to schedule the study plan, provides mock review and application documentation review.
- As a mentor instead of being merely a tutor, I also **communicated with parents and students for the proper education conception, resolved family conflicts and led students to explore themselves.** I believe I have a strong communication skill.

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.

Forecasting the components consume based on real data and providing 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 writed 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