Jesse Yu-Chieh **Kuo**

MOVE TOWARD TO BECOME AN OUTSTANDING RESEARCHER

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Summary

A student majoring in Information Management at National Taiwan University. Being interested in operations research, optimization problems, business mechanism design and economic modeling. A lover for Vim, LATEX, OS X and explore high-efficient development environments. Currently 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 Design, Data Structure and Advanced Programming, Machine Learning, Introduction to Text Mining, Operations Research, Statistics, Engineering Mathematics, Introduction to Mathematical Analysis, Linear Algebra, Convex Optimization(Graduate level), Information Economics(Graduate level), Microeconomic Theory I(Graduate Level) Platform Strategy(Graduate level), .

Work Experience

Speech Lab, NTU   *NTU, Taiwan*

PROJECT MANAGER   *Feb. 2019 - Present*

- 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.**

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 final project in the course Operations Research, advised by Professor Ling-Chieh Kung.
- Used the Integer Programming and graph 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.

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

AUTHOR & TEAM LEADER   *Fall 2020*

- The final 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.

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

CO-AUTHOR   *Spring 2021*

- The academic-oriented final 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.

Developing an after-death-mail web-service with information-encryption based on block chain

Front-end Engineer

Jan. 2021 - Exp. Dec. 2021

- The undergraduate project for students in the NTU IM, advised by Professor Chen-Chu Tsao. Co-work 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

NTUIM Student Association

Director of the department of course introduction for NTU Azalea Festival, 2021

Dec. 2020 - Feb. 2021

- 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++, Shell Script
Language	Chinese(Mandarin), English
Soft Skills	Interpersonal coordination, Curiosity, Empathy
Other	Git, LaTeX