Jerry Yu-Chieh **Kuo**

Move toward to become an outstanding researcher

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Summary

A student major in Information Management and minor in Mathematics at National Taiwan University. Being interested in operations research, optimization problems, business mechanism design and economic modeling and going forward to do rigorous research based on my research interest. A lover for Vim, LaTeX, OS X and explore high-efficient development environments and tools. 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, minor in Mathematics *2018 - Exp. 2023*

- **Overview GPA: 4.06/4.3**
- **Selected courses:** Data Structure and Advanced Programming, Linear Algebra, Machine Learning, Introduction to Digital Speech Processing, Engineering Mathematics, Operations Research, Information Economics(graduate level), Design and Analysis of Algorithm(graduate level), Platform Strategy(graduate level), Convex Optimization(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*

- Teaching subjects such as math, science, Chinese, article writing to increase students' grades.
- Based on students' situation to adjust teaching method. Improve the academic performance, teach students to schedule the study plan, provide mock review and application documentation review.
- As a mentor instead of being merely a tutor, I also **communicate with parents and students for the proper education conception, resolve family conflicts and lead students to explore themselves.**

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.
- Use the Integer Programming and graph algorithm to model the optimal vehicle schedule route, design the algorithm and implement the algorithm by operations research tools, visualize the result and construct solutions.
- Assign works properly and maintain reasonable load to teammates, write 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.
- Implement ML algorithms such as Linear Regression, Random Forest, Gradient Boosting Regression to forecast the components consume.
- Analyze the company strategy and construct business solutions against problems we found in this project.
- Assign works properly and maintain reasonable load to teammates, optimize work flow by pulling in productive tools such as git, hackMD to track everyone's contribution, and write 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-work with 4 teammates in the NTU IM.
- Check feasibility of the service, evaluate platform strategies, and establish potential business model.
- Involve 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*

- Lead a team of 5 members, assign members to proper works and supervise their progress.
- Construct the main structure of course introduction, survey plenty of courses in NTUIM and write a majority of contents.
- Ensure the presentation is useful to high school students, attempt to deal with the information asymmetric between department and high school students.

Skills

Programming	Python, C++, Shell Script, AMPL, Javascript, React.js
Language	Chinese(Mandarin), English
Soft Skills	Interpersonal coordination, Curiosity, Empathy
Other	Git, LaTeX