

Dennis (Shaoxiong) Zheng

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✉ denniszheng@uchicago.edu
📁 [dennisxz.github.io](https://github.com/dennisxz)

Career Interest

- Data Scientist, Quantitative Researcher/Trader.

Education

- 2021 **M.S. in Statistics**, *The University of Chicago*.
2019 **B.S. in Statistics and Finance**, *First Class Honours*, *The University of Hong Kong*.

Qualifications

- Financial Risk Manager (FRM): Part I passed
- China Securities Professional Qualification: passed

Publication

- [Book] **The Logic of Doing Things** (with J. Fu), *Sichuan People's Publishing House*. 2019. ISBN: 9787220111723.

Experience

- 2019 **The Hong Kong Centre for Economic Research**, *Research Assistant II*, Hong Kong.
Jun–Aug Conducted a research project on the impact of housing policies on residents' political stance. Retrieved demographic and housing data from Hong Kong Government website with Python. Processed the data with SAS and SQL. Ran fractional multinomial logistic regressions in Stata and revealed a significant relationship between housing types and the votes proportion of each party span in the election. Visualized the results on the Hong Kong map using `tmap` in R.
- 2018 Jun **Habitat for Humanity**, *Consulting Internship*, Manila, Philippines.
Led a team of 8 students to work in different departments of the NGO. Wrote an Excel VBA program that helped the HR department to better manage recruitment process. Collected opinions from the employees, interviewed the department heads, and provided solutions to facilitate the interactions across departments to improve the overall efficiency of the organization.
- 2018 Jan **Hong Kong Monetary Authority**, *Winter Internship*, Hong Kong.
Conducted research in cryptocurrencies especially Bitcoin. Analyzed time series data of Bitcoin price. Identified and measured cryptocurrencies related opportunities and riskiness to Hong Kong's economic development and financial market.

Projects

- 2020 Aug **Cooperation Relations of Private Equities and Venture Capitals in China**.
Applied Python to scrape over 80,000 records of VC/PE investment events from Cyzone.cn. Processed the data and used `Gephi` to draw a network graph and revealed the cooperation relations among top 500 VC/PE funds. Detected an alliance of foreign funds: IDG, Sequoia, Matrix Partners, and a separated cluster of funds with a government leader.

- 2019 Apr–May **A Deep Learning Model to Predict Vehicle’s Location Based on GPS Data, 2nd Prize Winner of EY NextWave Data Science Competition Hong Kong 2019.**
Apply deep neural networks with Python and TensorFlow to predict the location of more than 100,000 vehicles in Atlanta based on their GPS records. Achieved an F-1 score of 0.89. Ranked 76/2369 worldwide. Attended the Hong Kong Final, delivered a presentation and won the second prize.
- 2017 Jan **A Mathematical Model for Traffic Merging at Toll Plazas, Outstanding Winner of Mathematical Contest in Modeling 2017.**
Constructed a mathematical model to design a fan-in pattern to optimize the merging process when the vehicles pass through toll plazas. Ran sensitivity analysis, simulation, and conducted a hypothesis testing to conclude that the average throughput is significantly improved than the existing model, while the accident rate and building cost of the plaza roughly remain unchanged.

Extracurricular Activities

Leadership Positions

- 2017 Jan **Co-Founder of WeChat Public Account: Leverage Scheme.**
Present Share decision-making skills in life by critically applying concepts and methodologies that underlie Maths, Statistics, Economics and Finance with 3000+ followers worldwide through WeChat. Published the book *The Logic of Doing Things* in April 2019.
- 2018 Aug **Co-Founder of HKU Machine Learning Society.**
2019 Apr Promoted machine learning concepts and applications in HKU. Directed regular workshops and teach tutorials for beginners especially those from non-technical backgrounds. Accumulated over 200 registered members in one month.
- 2015 Sep **Student Ambassador of HKU.**
2019 Apr Represented HKU on receptions for delegations from the United States, the United Kingdom, Germany, Japan, and Mainland China. Be assigned to Korea, Malaysia and Taiwan to mentor local high school students and promote HKU. Directed HKU Experience Camp for more than 100 participants.

Volunteering Experiences

- 2016 Aug **English Teacher, Indonesia.**
Taught English and shared knowledge with local children in an Indonesian orphanage. Provided suggestions and helped to build a better learning environment.

Skills and Hobbies

- Languages Mandarin, English, Cantonese
Programming Python, R, SAS, SQL, and basic C#
Hobbies Hiking, baking, trading, and traveling

Awards and Scholarships

- 2nd Prize Winner of EY NextWave Data Science Competition Hong Kong 2019
- Laidlaw Undergraduate Research and Leadership Scholarship 2018-2019
- China Soong Ching Ling Foundation Scholarship 2015-2019 (*for talented Mainland China students admitted to undergraduate programs at HKU*)
- HKSAR Government Scholarship Fund Reaching Out Award 2018
- HKSAR Government Scholarship Fund Talent Development Scholarship 2018
- HKU Faculty of Science Dean’s Honors List 2016, 2017, 2018 (*Top 10% Students*)
- HKU Statistics and Actuarial Science (SAAS) Scholarships 2018
- Outstanding Winner of Mathematical Contest in Modeling 2017 (*Worldwide top prize*)
- Summer Research Fellowship at HKU Faculty of Science 2016-17