

# Ruilong Yue

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## EDUCATIONAL BACKGROUND

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### Dept. of Industrial Engineering, Tsinghua University

Beijing, China

Industrial Engineering B.Eng., minor in Statistics

2015.8-present

- **GPA:** 3.66/4      **Rank:** 7/54      More than half of math courses > 90 (top 20%)
- **Scholarship:** National Endeavor Fellowship, Scholarship of Academic Excellence, Scholarship of Outstanding Volunteers
- **Courses:** Operations Research(1-3); Introduction to Data Science, JAVA and Object-Oriented Programming, Numerical Analysis, Data Structure and Algorithm Analysis; Engineering Economy, Database Concepts, Modeling and Simulation; Multivariate Statistics Analysis, Linear Regression Analysis, Experimental Design, Applied Time Series Analysis, Financial Statistics, Reliability Data and Survival Analysis
- **Courses (taking):** Convex Optimization, Introduction to Machine Learning, Introduction to Mathematical Physics Equations, Statistical Calculation, Stochastic Process, Introduction to Bayesian Statistics

## RESEARCH PROJECT

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### Approximation Error of Exchange Rate Based on Virtual Standard Currency (VSC)

undergraduate thesis

Instructor: Hongxuan Huang, Associate Professor, Department of Industrial Engineering, Tsinghua University

- VSC: derived from a rank-1 approximation for currency portfolio optimization; to get an objective criterion.
- Plan: realize the approximation to find VSC, errors and the properties; try to use related time series models.

### A Solution to Big-data Dynamic Portfolio Selection Problem with No-shorting Constraints

2018.7-2018.10

Instructor: Hoiyng, Wong, Professor, Department of Statistics, Chinese University of Hong Kong

- Self-studied stochastic calculus, optimal control, high-dim statistics. Analyzed the viscous solution of the problem under no-shorting constraints. Calculated theoretical and estimated statistics of terminal wealth, and proved its convergence properties. A new method(NSLPO) was proposed to deal with high-dimensional data.
- Used simulation and empirical methods to study the convergence and results of NSLPO, and compared it with LPO in markets with/without strict no-shorting restrictions. Am trying to organize the results to a paper.

## COURSE PROJECT

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### Time Series Modeling Analysis of Beijing Housing Price,

2018.6-2018.7

Instructor: Dong Li, Associate Professor, Center for Statistical Science, Tsinghua University

- Crawled house price, GDP. An ARIMA model was fitted and test for house price, and parameter estimation and model diagnosis were performed. Performed outlier detection, found external interventions and included them in the model. Forecasted the housing price and explored the relationship between it and GDP changes.

### An Empirical Study of Asset Pricing Model in China,

2017.11-2017.12

Instructor: Dong Li, Associate Professor, Center for Statistical Science, Tsinghua University

- Realized CAPM, APT and multi-factor models by python. Did the optimization on Sharpe rate and variance.

## SOCIAL ACTIVITIES

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### Global South Culture Immersion Program UGM-Tsinghua University

Yogyakarta, Indonesia 2017.9

- Put forward questions and suggestions. Got appreciations for research ability and outstanding performance.

## ADDITIONAL INFORMATION

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English: with overseas experience, proficient in reading and writing, fluent listening and speaking ability

Skills: **R(10 projects), LaTeX, python, MATLAB, SAS, C, Java, MySQL, CPLEX, Minitab, Microsoft Office**

Extensive interest: swimming, table tennis (department team member), reading and “modern style” poetry, etc.