

# Haobo Zhang

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## Education

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### Georgia Institute of Technology

Aug 2024 – Present

*MS in Operations Research*

- GPA: 3.88/4.00
- **Coursework:** Stochastic Processes I\*, Stochastic Processes II\*, Linear Optimization\*, Discrete Optimization, Simulation Theory and Methods, Computational Methods in Optimization, Theoretical Statistics, Computational Statistics, Monte Carlo Methods.

### Shanghai Jiao Tong University

Sep 2020 – Jun 2024

*BA in Economics & BS in Mathematics and Applied Mathematics*

- GPA: 3.70/4.30
- SJTU Scholarship for Outstanding Undergraduates for the 2021, 2022 and 2023 academic years.
- **Coursework:** Machine Learning, Computational Text Analysis, Data Structures and Algorithms, Financial Engineering, Econometrics, Microeconomics, Behavioral Economics, Topology, Real Analysis, Functional Analysis.

### Hong Kong University of Science and Technology

Sep 2023 – Dec 2023

*School of Business and Management Semester Exchange*

- GPA: 4.03/4.30
- **Coursework:** Applied Game Theory, Statistical Analysis of Financial Data in R, Simulation in Business and Management.

## Research Experience

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### Mechanism Design for Data Markets with Competing Buyers under Differential Privacy

Sep 2025 – Present

*Work in progress, independent.*

### Incentivizing Data Sharing with Heterogeneous Privacy Costs

May 2025 – Present

*Work in progress, advised by Prof. Juba Ziani and Prof. Kate Donahue.*

### Stable Matching Process on Random Bipartite Graph Sequences

Dec 2023 – May 2024

*Undergraduate thesis, advised by Prof. Jun Luo and Prof. Yan Wang.*

- Proposed a two-sided dynamic matching model with restrictions imposed on matching at each time stage.
- Developed a corresponding matching mechanism that guarantees instant stability and convergence to universal stability.

### Prediction of Cryptocurrency Returns Based on Market Sentiment and Blockchain Address Activity

May 2022 – Oct 2022

*Undergraduate participation in research program, advised by Prof. Haibing Shu.*

- Created automatically updated databases of crypto-relevant texts and blockchain address activities.
- Constructed sentiment indices tailored to the cryptocurrency market, based on crypto-relevant texts.
- Formulated network indices to characterize blockchain address activities using social network analysis.
- Evaluated the constructed indices with linear models and validated their predictive powers for cryptocurrency returns.

## Professional Experience

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### Model Engineer Intern

*Ping An Asset Management Co., Ltd.*

*Shanghai, China*

*May 2023 - Aug 2023*

- Conducted research on FOF investment, including fund performance evaluation and portfolio optimization.
- Developed algorithms on financial market style indication and fund portfolio estimation.
- Supported the construction of factor data required for investment research platforms and financial models.

### Data Researcher Intern

*East Money Information Co., Ltd.*

*Shanghai, China*

*Jul 2022 - Sep 2022*

- Conducted research on industry chains and supported the creation of industry chain graphs.
- Performed statistical analysis on industry data and constructed industry chain databases.
- Contributed to the development of the industry chain data research platform.

## Skills

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**Programming Languages:** Python, C/C++, Java, SQL, R, Stata, MATLAB.

**Technologies:** CUDA, Linux, Git, Financial terminals, L<sup>A</sup>T<sub>E</sub>X.

## Miscellaneous

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**Teaching Experience:** Tutor for ISyE 3133 - Engineering Optimization (Fall 2025, Gatech); Tutor for ISyE 2027 - Probability With Applications (Spring 2025, Gatech).

**Languages:** English (Fluent), Mandarin (Native).

**Clubs & Associations:** SJTU \*NIX User Group.

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\*Passed PhD Comprehensive Exam