TIANZE JIANG

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EDUCATION

Ph.D., Princeton University   Operations Research and Financial Engineering   **2024 - present**

B.S., Massachusetts Institute of Technology   Mathematics and Computer Science (GPA: 5.0/5.0)   **2020 - 2024**

Selected Honors and Awards:

- Francis Robbins Upton Fellow   2024
- William Lowell Putnam Math Competition, N1 (top 15 overall)   2021
- International Math Olympiad (IMO), Team USA, Silver Medal   2020
- USA Math Olympiad (USAMO) winner, 5th place nationwide   2020
- Asian Pacific Math Olympiad, 3rd place worldwide   2020
- Chinese International Math Olympiad (IMO) Team Candidate (top 15 overall)   2018

SELECTED RESEARCH

*Papers in this section are <u>all</u> under joint first-authorship ordered *alphabetically* unless they are not.*

1. Patrik Gerber, **TJ**, Yury Polyanskiy, Rui Sun, "*Density estimation using the perceptron.*" (2024+) Submitted. Paper.

2. Yanjun Han, **TJ**, Yihong Wu, "*Prediction from compression for models with infinite memory.*" In: *Proc Conf on Learning Theory (COLT 2024)*, July 2024. Paper.

3. Patrik Gerber, **TJ**, Yury Polyanskiy, Rui Sun, "*Kernel-based Tests for Likelihood-Free Hypothesis Testing.*" In: *Proc 37th Adv Neural Inf Process Syst (NeurIPS 2023)*, December 2023. Paper.

4. Guy Bresler and **TJ**, "*Detection-Recovery and Detection-Refutation Gaps via Reductions from Planted Clique.*" In: *Proc Conf on Learning Theory (COLT 2023)*, July 2023. Paper.

5. Quanlin Chen, **TJ**, Yuxiao Wang, "*On the Generational Behavior of Gaussian Binomial Coefficients at Roots of Unity*". MIT PRIMES (2020). Paper.

6. Sihui Zhang and **TJ**, "*A Note on Primitive Heronian Triangles*". In: *Chinese Ann. of Mathematics (2019)*. Paper.

SELECTED PRESENTATIONS

- Sampling via stochastic localization, Bresler Research Group, MIT   Nov. 2023
- Computational lower bounds via avg. case reductions, Chen Research Group, Harvard   Oct. 2023
- Slicing with random half-spaces, Pilanci Research Group, Stanford   Apr. 2023
- Slicing with random half-spaces, Bresler Research Group, MIT   Apr. 2023
- Likelihood-Free Inference with kernels, Polyanskiy Research Group, MIT   Dec. 2022

INDUSTRY EXPERIENCES

Quantitative Research Intern, Citadel Securities, Miami, FL   Jun. - Aug. 2024
FICC and Systematic Equities
- Studied market impact of high-frequency trades on the US equities market.
- Constructed trade impact accounting models that are invariant across multiple different time horizons.

Quantitative Research Intern, TongDeng Capital, Shanghai, China   May. - Aug. 2021
Chinese Equities
- Studied monetization problem of Chinese equities under the T+1 constraints.

OTHER EXPERIENCES

- **Teaching Assistant**, MIT 6.3700: Introduction to Probability.   SP2023
- **Teaching Assistant**, MIT 6.7810: Algorithms for Inference (Approved Advanced Graduate Subject).   FA2022
- **Grader, Test Reviewer**, IMO (USA) Team Selection Tests.   2021