

## Yuxi Jennifer Sun

### EDUCATION

**Princeton University**, Ph.D. Operations Research & Financial Engineering Expected 05/2025

- Research area: learning theory, optimization, nonstochastic control. Thesis advisor: Elad Hazan.
- Honors and awards: Gordon Y.S. Wu Fellowship (highest honor in engineering school)
- Coursework: Theoretical Machine Learning, Optimization, Mathematical Statistics, Stochastic Calculus, Stochastic Optimal Control, Probability Theory, High Dimensional Probability, Algorithms

**Princeton University**, M.A. Operations Research & Financial Engineering 09/2023

- Incidental degree awarded upon passing Ph.D. general exam in 05/2023.

**The University of Chicago**, B.S. w/ Honors Mathematics 10/2018 - 08/2021

- Honors and awards: Summa Cum Laude, Phi Beta Kappa, Robert Maynard Hutchins Scholar
- Sample Coursework: Measure Theory, Measure-Theoretic Probability Theory, Functional Analysis, Group Theory, Ring Theory, Riemannian Geometry, East Asian Fictions, Renaissance Art History

### PUBLICATIONS

- **Sun, Y. J.**, Newman, S., & Hazan, E. (2023). Optimal Rates for Bandit Nonstochastic Control. *NeurIPS 2023*.
- **( $\alpha$ - $\beta$ ) Hazan, E.**, Kalai, A., Kanade, V., Mohri, C., & **Sun, Y.J.** (2023). Partial Matrix Completion. *NeurIPS 2023*.
- Feinberg, V., Chen, X., **Sun, Y. J.**, Anil, R., & Hazan, E. (2023). Sketchy: Memory-efficient Adaptive Regularization with Frequent Directions. *NeurIPS 2023*.
- Yang, X. H., Goldstein, A., **Sun, Y.**, Wang, Z., Wei, M., Moskowitz, I. P., & Cunningham, J. M. (2022). Detecting critical transition signals from single-cell transcriptomes to infer lineage-determining transcription factors. *Nucleic acids research*, 50(16), e91-e91.

### WORK EXPERIENCES

**Google DeepMind**, Student Researcher 06/2023 – 08/2023, 10/2023-12/2023

- Applied optimization and extension of the theory work in Sketchy: Memory-efficient Adaptive Regularization with Frequent Directions

**Credit Suisse LLC.**, Sales and Trading Summer Analyst 06/2021 – 08/2021

- Rotation with Macro & Emerging Markets, Equity Derivatives, and Global Execution Services

### ACADEMIC EXPERIENCES

**Princeton University**, Assistant in Instruction 09/2022 – present

- Courses taught: Intro to Financial Mathematics, Computational Finance in C++

**The University of Chicago, Department of Pediatrics**, Research Assistant 01/2019 – 08/2021

- Research focus: tipping-point analysis in single-cell transcriptomes. Coauthored open-source R-package BioTIP available on BioConductor.

**The University of Chicago, Department of Mathematics**, REU 06/2020 – 08/2020

- Intensive reading course in algebraic topology.

**Hiroshima University**, Research Intern 06/2019 – 09/2019

- Research focus: regularization methods in CNN. Research advisor: Takio Kurita.

**The University of Chicago, Department of Statistics**, Course Assistant 10/2019 – 06/2021

- Course covered: Intro to Math Probability, Intro to Probability Models, Applied Regression Analysis

### SERVICES

- Reviewer: NeurIPS 2023, STOC 2024, ICML 2024
- Program committee: COLT 2023, 2024

### SKILLS

- Languages: English, Chinese (Mandarin), Japanese
- Programming languages: python, R