Yinbin Han

yinbinha@stanford.edu | Palo Alto, CA

EDUCATION

Stanford University Sep 2025 – Dec 2027 (Expected)
Doctor of Philosophy, Management Science and Engineering
Advisors: Renyuan Xu (Stanford), Meisam Razaviyayn (USC)

New York University Sep 2024 – Aug 2025
Ph.D. Student, Finance and Risk Engineering

University of Southern California Aug 2021 – Aug 2024
Ph.D. Student, Industrial and Systems Engineering

Chinese University of Hong Kong, Shenzhen Sep 2017 – Jun 2021
B.S. Mathematics

University of California, Berkeley Jan 2020 – May 2020
Exchange Student

INDUSTRIAL EXPERIENCE

Meta May 2024 – Aug 2024
Research Scientist Intern

RESEARCH INTERESTS

- Applied Probability and Stochastic Modeling
- Nonconvex Optimization and Stochastic Optimization
- Data-driven Decision Making and Reinforcement Learning
- Stochastic Control and Mathematical Finance
- Diffusion Models and Schrödinger Bridge

WORKING PAPERS

1. Y. Han, and M. Razaviyayn. "Stochastic Inexact Augmented Lagrangian Method for Nonconvex Robust Constrained Optimization." *NeurIPS workshop on Constrained Optimization for Machine Learning*, 2025.
2. H. Cao, M. Chen, Y. Han, and R. Xu. "Diffusion Models for Adapted Sequential Data Generation." *NeurIPS workshop ML×OR*, 2025.

JOURNAL PUBLICATIONS

1. Y. Han, M. Razaviyayn, and R. Xu. "Policy Gradient Converges to the Globally Optimal Policy for Nearly Linear-Quadratic Regulators." *SIAM Journal on Control and Optimization*, 2025.
   - Short version accepted by *NeurIPS Workshop Optimization for Machine Learning*, 2022.
2. Y. Han and Z. Wang. "Optimal Switching Policy for Batch Servers." *Operations Research Letters*, 2023.

CONFERENCE PUBLICATIONS

1. Y. Han, M. Razaviyayn, and R. Xu. "Stochastic Control for Fine-tuning Diffusion Models: Optimality, Regularity, and Convergence." International Conference on Machine Learning (ICML), 2025.
2. Y. Han, M. Razaviyayn, and R. Xu. "Neural Network-based Score Estimation in Diffusion Models: Optimization and Generalization." *International Conference on Learning Representations (ICLR)*, 2024.

- Short version accepted by *NeurIPS workshop on Diffusion Models*, 2023.

INVITED TALKS

- INFORMS Annual Meeting, Atlanta — Oct 2025
- International Conference on Continuous Optimization, Los Angeles — Jul 2025
- INFORMS Applied Probability Society Conference, Atlanta — Jun 2025
- Advances in Stochastic Control and Reinforcement Learning, Banff — Apr 2025
- INFORMS Annual Meeting, Seattle — Oct 2024
- INFORMS Optimization Society Conference, Houston — Mar 2024
- INFORMS Annual Meeting, Phoenix — Oct 2023
- INFORMS Annual Meeting, Indianapolis — Nov 2022

POSTER PRESENTATIONS

- NeurIPS Workshop ML×OR, San Diego — Dec 2025
- NeurIPS Workshop on Constrained Optimization for Maching Learning, San Diego — Dec 2025
- International Conference on Machine Learning, Vancouver — Jul 2025
- Yale Sampling Conference, New Haven — Oct 2024
- International Conference on Learning Representations, Vienna — May 2024
- NeurIPS 2023 Workshop on Diffusion Models, New Orleans — Dec 2023
- NeurIPS Workshop OPT2022, New Orleans — Dec 2022

ORGANIZERS

- Co-organizer of NeurIPS 2025 Workshop on Generative AI in Finance — Dec 2025
- Session co-chair at International Conference on Continuous Optimization — July 2025
- Co-organizer of the NYC Brown Bag Reading Group on Foundations of Generative AI — Sep 2024
- Session co-chair at INFORMS Optimization Society Conference — Mar 2024

REVIEWERS

- Journals: SIAM Journal on Control and Optimization, European Journal of Operational Research, Finance and Stochastics, Journal of the American Statistical Association.
- Conferences: International Conference on Learning Representations (ICLR), International Conference on Machine Learning (ICML), Neural Information Processing Systems (NeurIPS), International Conference on Artificial Intelligence and Statistics (AISTATS), Conference on Uncertainty in Artificial Intelligence (UAI), Association for the Advancement of Artificial Intelligence (AAAI).

PROFESSIONAL MEMBERSHIP

- Institute for Operations Research and the Management Sciences (INFORMS)
- Applied Probability Society (APS)

TEACHING EXPERIENCE

NYU, Teaching Assistant

- FRE-GY 5020 & 5030: Bootcamp — Summer 2025
- FRE-GY 6233: Stochastic Calculus and Option Pricing — Spring 2025
- FRE-GY 9073: Stochastic Systems and Modern ML Theory — Fall 2024

USC, Teaching Assistant

- ISE 530: Optimization Methods for Analytics — Fall 2023, Spring 2024

CUHKSZ, Undergraduate Student Teaching Fellow

- MAT2002: Ordinary Differential Equations — Spring 2021
- BIO2001: General Biology — Summer 2019

AWARDS & HONORS

- ICCOPT 2025 Student Travel Grant — Jun 2025
- Yale Sampling Conference Student Travel Grant — Oct 2024
- National Scholarship of China — 2020
- Academic Performance Scholarship, CUHKSZ — 2018, 2019, 2020
- Dean's List, CUHKSZ — 2018, 2019, 2020

TECHNICAL SKILLS

Programming Languages:

- Proficient in Python, Numpy, Pandas, PyTorch, R, and MATLAB
- Familiar with Java, C/C++, MySQL
- Experience with Hadoop, Spark, and CUDA