# 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

**EXPERIENCE** 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

# 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

- 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 • International Conference on Machine Learning, Vancouver 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 • Yale Sampling Conference, New Haven Oct 2024 • International Conference on Learning Representations, Vienna May 2024 • INFORMS Optimization Society Conference, Houston Mar 2024 • NeurIPS 2023 Workshop on Diffusion Models, New Orleans Dec 2023 • INFORMS Annual Meeting, Phoenix Oct 2023 • NeurIPS Workshop OPT2022, New Orleans Dec 2022Nov 2022 • INFORMS Annual Meeting, Indianapolis **ORGANIZERS** • Co-organizer of NeurIPS 2025 Workshop on Generative AI in Finance Dec 2025 • Session co-chair at International Conference on Continuous Optimization July • Co-organizer of the NYC Brown Bag Reading Group on Foundations of Generative AI Sep 2024 Mar 2024 Session co-chair at INFORMS Optimization Society Conference REVIEWERS • Journals: SIAM Journal on Control and Optimization, European Journal of Operational Research, Finance and Stochastics. • 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** • Institute for Operations Research and the Management Sciences (INFORMS) **MEMBERSHIP** • Applied Probability Society (APS) **TEACHING** NYU, Teaching Assistant **EXPERIENCE** • FRE-GY 5020 & 5030: Bootcamp Summer 2025 • FRE-GY 6233: Stochastic Calculus and Option Pricing Spring 2025 Fall 2024 • FRE-GY 9073: Stochastic Systems and Modern ML Theory USC, Teaching Assistant • ISE 530: Optimization Methods for Analytics Fall 2023, Spring 2024

CUHKSZ, Undergraduate Student Teaching Fellow
• MAT2002: Ordinary Differential Equations

• BIO2001: General Biology

Spring 2021

Summer 2019

# AWARDS & HONORS

• ICCOPT 2025 Student Travel Grant	Jun 2025
• Yale Sampling Conference Student Travel Grant	Oct 2024
• National Scholarship of China	2020
$\bullet$ Academic Performance Scholarship, CUHKSZ	2018,2019,2020

 $2018,\,2019,\,2020$ 

# TECHNICAL SKILLS

## Programming Languages:

 $\bullet\,$  Dean's List, CUHKSZ

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