

Qingyang Xu

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA 08/2018 – 05/2022

Ph.D. in Operations Research

Thesis: Financial and Analytic Innovations for Therapeutic Development ([link](#))

Thesis advisor: Andrew W. Lo, MIT Sloan School of Management

Stanford University, Stanford, CA 09/2013 – 06/2017

B.S. in Physics (with Honors), Concentration in Theoretical Physics

B.S. in Mathematical and Computational Science

Graduation Honor: University Distinction (top 15% GPA of graduating class)

WORK EXPERIENCE

Senior Software Engineer, LinkedIn 02/2025 – present

Leverage machine learning and statistical modeling for user network growth recommendation.

Implement software system infrastructure to serve machine learning models to millions of users.

Machine Learning Engineer, DoorDash 08/2023 – 02/2025

Train statistical models for delivery time and food preparation time prediction.

Develop large-scale optimization methods for delivery worker assignment to maximize efficiency.

Implement backend services and run A/B experiments to test and productionize new models.

Research Engineer, Helm.ai 01/2023 – 08/2023

Trained and deployed novel AI algorithms for object segmentation for autonomous vehicles.

Fine-tuned foundational models in computer vision for domain-specific object detection tasks.

Machine Learning Research Scientist, Meta 10/2022 – 01/2023

Trained novel AI models for product recommendation in Meta's virtual reality system.

Researcher, MIT Operations Research Center 08/2018 – 05/2022

Designed novel machine learning algorithms to predict clinical trial outcomes.

Proposed reinforcement learning models to expedite clinical trials during epidemics.

Research Intern, DAMO Academy, Alibaba Group 05/2020 – 08/2020

Designed novel deep learning models for anomaly detection and time series forecast.

PUBLICATIONS

Estimating Correlations Between Clinical Trial Outcomes Using Generalized Estimating Equations

Co-author, with Yuehao Dai, Andrew W. Lo, Manish Singh, and Ruixun Zhang

Under review

Use of Bayesian Decision Analysis in the Design of Patient-Centered Clinical Trials for Kidney Failure Devices

Co-First author, with Zied Ben Chaouch, Shomesh E. Chaudhuri, ..., and Andrew W. Lo
Under review

Portfolio Optimization for R&D Projects: A Real Options Dynamic Programming Approach

Second author, with Leonid Kogan, Andrew W. Lo and Ruixun Zhang
Under review

Incorporating Patient Preferences and Burden-of-disease in Evaluating ALS Drug Candidate AMX0035: A Bayesian Decision Analysis Perspective

First author, with Joonhyuk Cho, Zied Ben Chaouch, and Andrew W. Lo
Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration (2023) 24(3–4): 281–288

Accelerating Vaccine Innovation for Emerging Infectious Diseases via Parallel Discovery

Leading author, with Joseph Barberio, Jacob Becraft, Zied Ben Chaouch, et al.
Entrepreneurship and Innovation Policy and the Economy (2023) 2(1), 9–39

Real-Time Extended Psychophysiological Analysis of Financial Risk Processing

Second author, with Manish Singh, Sarah J. Wang, Tinah Hong, Mohammad M. Ghassemi, and Andrew W. Lo
PLOS ONE (2022) 17(7): e0269752

Identifying and Mitigating Potential Biases in Predicting Drug Approvals

First author, with Elaheh Ahmadi, Alexander Amini, Daniela Rus and Andrew W. Lo
Drug Safety (2022) 45: 521–533

Accelerating Glioblastoma Therapeutics via Venture Philanthropy

Co-First author, with Kien Wei Siah, Kirk Tanner, Olga Futer, John J. Frishkopf, Andrew W. Lo
Drug Discovery Today (2021) 26(7): 1744–1749

Two-Stage Framework for Seasonal Time Series Forecasting

First author, with Qingsong Wen and Liang Sun
IEEE International Conference on Acoustics, Speech, & Signal Processing (ICASSP) 2021

Bayesian Adaptive Clinical Trials for Anti-Infective Therapeutics during Epidemic Outbreaks

Leading author, with Shomesh E. Chaudhuri, Danying Xiao, and Andrew W. Lo
Harvard Data Science Review (2020) Special Issue on COVID-19. [Featured](#) in MIT Sloan News.

Visualizing Probabilistic Models in Minkowski Space: An Analytical Coordinate Embedding

Co-author, with Han Kheng Teoh, Katherine N. Quinn, Jaron Kent-Dobias, Colin B. Clement, and James P. Sethna. *Physical Review Research* (2020) 2, 03321

Fair and Responsible Drug Pricing: A Case Study of Radius Health and *abaloparatide*

First author, with Andrew W. Lo

Journal of Investment Management (2020) 18(1): 90–98

Search for $2\nu\beta\beta$ Decay of ^{136}Xe to the 0_1^+ Excited State of ^{136}Ba with the EXO-200 Liquid Xenon Detector

Co-author, with Joshua Albert, et al.

Physical Review C (2016) 93, 035501

TEACHING EXPERIENCE

Teaching Assistant, MIT Sloan School of Management

09/2020 – 12/2020

Taught Healthcare Finance with over 100 students and received high rating 6.9/7.0 ([link](#))

PEER REVIEW SERVICE

Journals

ACM Transactions on Intelligent Systems and Technology (TIST)

Journal of Data-centric Machine Learning Research (DMLR)

ACM Transactions on Knowledge Discovery from Data (TKDD)

IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

IEEE Transactions on Intelligent Vehicles (TIV)

IEEE Transactions on Knowledge and Data Engineering (TKDE)

Conferences (past 12 months)

AAAI Conference on Artificial Intelligence (AAAI 2025)

International Conference on Learning Representations (ICLR 2025)

International Conference on Machine Learning (ICML 2024)

Annual Conference on Neural Information Processing Systems (NeurIPS 2024)

European Conference on Computer Vision (ECCV 2024)

ACM International Conference on Knowledge Discovery and Data Mining (KDD 2024)

HONORS & AWARDS

2nd Place – MIT FinTech Datathon

02/2019

David S. Levine Award, Department of Physics, Stanford University

06/2016

Presented annually in recognition of the top physics undergraduate student ([link](#)).

Undergraduate Major Research Grant, Stanford University

04/2016 – 06/2017

University Distinction, Class of 2017, Stanford University

06/2017

Stanford Fund Scholarship, Stanford University

09/2013 – 06/2017

Cornell Graduate Fellowship, Cornell University

08/2017 – 05/2018

LEADERSHIP & SERVICE

Founder & President, MIT Chinese Music Ensemble

10/2018 – 05/2022

Founded and managed the daily rehearsals and performances of MIT Chinese Music Ensemble.

Performed at MIT Chinese Lunar New Year Gala and Harvard ARTS FIRST Festival.