

Qingyang Xu

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Education

Massachusetts Institute of Technology

Ph.D. in Operations Research

Cambridge, MA

08/2018 – 05/2022

Research: develop novel AI models and optimization methods for drug discovery and clinical trial design

Advisor: Andrew W. Lo, MIT Sloan and CSAIL (Computer Science and Artificial Intelligence Lab)

Stanford University

B.S. in Physics (with Honors), B.S. in Applied Mathematics

Stanford, CA

09/2013 – 06/2017

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

Work Experience

LinkedIn

Senior AI Engineer

Mountain View, CA

02/2025 – 02/2026

- LLM post-training to improve retrieval and ranking for people-you-may-know (PYMK) recommendations.
- Leverage semantic LLM embedding to increase the professional network size of new users by 40%.
- Develop the first AI agent system leveraging LinkedIn's knowledge graph to facilitate users' job search.

DoorDash

Machine Learning Engineer

San Francisco, CA

08/2023 – 02/2025

- Train Transformer-based AI models to improve the accuracy of food delivery time predictions by 20%.
- Implement large-scale optimization for dasher assignment and reduce delivery time by 10s.

Helm.ai

Research Engineer

Redwood City, CA

01/2023 – 08/2023

- Train Vision Transformer models for object segmentation and classification with 15% higher accuracy.
- Fine-tune foundation models in computer vision for domain-specific object detection tasks.

Meta

Machine Learning Research Scientist

Menlo Park, CA

10/2022 – 01/2023

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

DAMO Academy, Alibaba Group

Research Intern

Seattle, WA

05/2020 – 08/2020

- Develop AI models via self-supervised learning for anomaly detection and time series forecasting.
- Deploy time-series forecasting models to optimize cloud computing resource allocation.

Selected Publications

1. Estimating Correlations Between Clinical Trial Outcomes Using Generalized Estimating Equations

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

Oxford Bulletin of Economics and Statistics, 2025

2. DORADO: Dynamic Optimization of R&D Options

Leading author, with Zixi Chen, Leonid Kogan, Andrew W. Lo, and Ruixun Zhang

17th Annual Conference on Advances in the Analysis of Hedge Fund Strategies, 2025

3. **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, et al.
Computers in Biology and Medicine, 2025, 198:111150
4. **Predicting Clinical Trial Duration via Statistical and Machine Learning Models**
Second author, with Joonhyuk Cho, Chi Heem Wong, and Andrew W. Lo
Contemporary Clinical Trials Communications, 2025, 101473
5. **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
6. **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
7. **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
8. **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
9. **Accelerating Glioblastoma Therapeutics via Venture Philanthropy**
Co-first author, with Kien Wei Siah, Kirk Tanner, Olga Futer, John J. Frishkopf, and Andrew W. Lo
Drug Discovery Today, 2021, 26(7):1744-1749
10. **Two-Stage Framework for Seasonal Time Series Forecasting**
First author, with Qingsong Wen and Liang Sun
ICASSP, 2021
11. **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*
12. **Visualizing Probabilistic Models in Minkowski Space with Intensive Symmetrized Kullback-Leibler 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

Patents

1. **Arrival time forecasting mixture of experts model system with time series features**
US Patent App. 19/322,443
Transformer-based MoE architecture for food preparation and delivery time prediction
2. **Next-gen ETA machine learning (ML) system**

US Patent App. 19/067,414

Novel embedding-based AI model architecture and software system to predict food delivery time

Book

The Algorithmic World

Shanghai Educational Publishing House, 2025

Winner of the *Top 100 Books Published in Shanghai* in 2025

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)

- CVPR 2025
- NeurIPS 2025
- ICML 2025
- AAAI 2025
- ICLR 2025
- KDD 2025

Honors & Awards

- 2nd Place, MIT FinTech Datathon 02/2019
- David S. Levine Award, Stanford University Department of Physics 06/2016
- Undergraduate Major Research Grant, Stanford University 04/2016 – 06/2017
- University Distinction, Stanford University 06/2017
- Stanford Fund Scholarship, Stanford University 09/2013 – 06/2017
- Cornell Graduate Fellowship, Cornell University 08/2017 – 05/2018