

MICHAEL ZHANG

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EDUCATION

Massachusetts Institute of Technology | Cambridge, MA Feb 2024
Master of Engineering: Artificial Intelligence Concentration GPA: 5.0/5.0
Working with professor Phiala Shanahan on flow-based sampling algorithms for large-N gauge theories.

Massachusetts Institute of Technology | Cambridge, MA Jun 2023
Bachelor of Science: Double Major in Computer Science and Math, Minor in Physics GPA: 5.0/5.0
Relevant Coursework: Machine Learning, Statistical Learning Theory, Algorithms for Inference

Saratoga High School | Saratoga, CA Jun 2019
High School Diploma GPA: 4.0/4.0

WORK EXPERIENCE

Quantitative Trading Intern, Jane Street | New York, NY May 2022 - Aug 2022
- Used Pandas and Excel to investigate cryptocurrency market structure and stock-exchange closing auctions.
- Learned about various models, some involving machine learning, that can be used to analyze market data.

Quantitative Trading Intern, Optiver | Chicago, IL Jun 2021 - Aug 2021
- Excelled in a four-week option theory course and an intern algotrading competition.
- Traded S&P futures and options in a simulated environment with live market data.
- Contributed to a pricing model for index options.

Undergraduate Researcher, MIT Quest for Intelligence | Cambridge, MA Sep 2020 - Dec 2021
- Optimized neural networks for performing symbolic regression on datasets involving extrapolation.
- Developed an architecture for fitting equations to data governed by parametric and differential equations.
- Investigated the end-to-end training of complex models incorporating symbolic regression networks.

Software Engineering Intern, PayPal | San Jose, CA May 2020 - Aug 2020
- Built sentiment analysis models to analyze posts on social media and interactions with customer service.
- Created baseline models to validate H2O.ai software for PayPal use.
- Tech stack: Python, Pytorch, NLP, BERT, MLflow, transfer learning.

AWARDS

- USA Computing Olympiad Finalist (top 26 in U.S.)	- Putnam Competition Top 500
- USA Math Olympiad Qualifier (score: 15)	- Stanford ProCo Grand Prize
- USA Physics Olympiad Silver Medalist	- received \$2,500 National Merit Scholarship

LEADERSHIP & VOLUNTEER EXPERIENCE

Computer Science Club Sep 2015 - May 2019
President
- Organized weekly meetings that ranged from lectures to interesting problems to fun contests.
- Led the planning for an in-person, olympiad-style coding competition with contestants from nearby schools.

Math Club Sep 2015 - May 2019
President
- Organized weekly meetings that usually involved solving problems and student speakers.
- Dealt with the logistics behind administering national contests (AMC, AIME, etc.).
- Streamlined student registration for local math competitions (SMT, BMT, etc.).

ADDITIONAL SKILLS

Computer: Python, Numpy, Pytorch, Pandas, Tensorflow, Java, JavaScript, React.js, Latex
Languages: conversational proficiency in Mandarin, basic skills in Spanish