

# Katherine Xiong

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## Education

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### Massachusetts Institute of Technology

B.S. in Computer Science, Minor in Economics, Minor in Math, GPA: 5.0/5.0

Class of 2022

MEng in Computer Science

Class of 2023

Relevant Coursework: Elements of Software Construction, Software Studio, Computer Systems Engineering, Embedded Systems, Design and Analysis of Algorithms, Introduction to Machine Learning, Intelligent Multimodal User Interfaces (Grad), Computer Systems Security (Grad), Theory of Computation (Grad), How to Make Almost Anything (Grad)

## Experience

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### MIT Laboratory for Financial Engineering

Cambridge, MA

Research Assistant

September 2021 – June 2022

- Developed multiple machine learning factor models of varying complexity using TensorFlow to explain anomalies catalogued in asset pricing literature, computed regressions with the factors and historical hedge fund data to test their performance

### Goldman Sachs

New York, NY

Quantitative Strategist Intern

June – August 2021

- Rotation 1: One Delta ETF Desk – Built a system in Scala to calculate trade imbalances and publish large block trades in real time. Reduced latency of block trade publishing from 4 minutes to under 1 second
- Rotation 2: FICC Systematic Market Making Commodities Desk – Developed a model in Python to systematically identify adverse API client flows in gold trades

### MIT Computer Graphics Lab

Cambridge, MA

Research Assistant

September 2020 – June 2021

- Leveraged deep image priors to improve a deep convolutional neural network for novel view synthesis, conducted ablation studies on various reconstruction and rendering techniques

### Amazon

Seattle, WA

Software Engineering Intern

June – August 2020

- Built an internal web tool using React, Flask, and Python for the customer service team to retrieve customers' SageMaker Studio account and resource information and analyze workflow failures

### Bank of America Merrill Lynch

New York, NY

Trading Winter Analyst

January 2020

- Portfolio Risk/Index Strategy Desk – Implemented a program in Python using the Bloomberg API to extract insights from IPO data and develop a trading strategy around lock-up expiration dates

## Leadership

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### 6.006 Introduction to Algorithms Teaching Assistant

Cambridge, MA

Teaching Assistant

January 2022 - Present

- Teaching assistant for the required algorithms class (over 300 students per semester) for all MIT computer science majors
- Taught recitations twice a week, led weekly office hours, helped write problem sets and recitation notes, graded exams

### MIT Global Teaching Lab

Sao Paulo, Brazil

Teacher

January 2019

- Taught workshops involving laser cutting, 3-D printing, Arduino, and MIT App Inventor in a makerspace for 60 children
- Designed and taught a three-day Introduction to Python class to 15 students age 12-18

## Awards

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MIT EECS Research and Innovation Scholar

3x American Invitational Mathematics Exam Qualifier (Score: 9)

Siemens Competition Semifinalist

## Skills & Interests

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Software: Java, Python, C++, Scala, Tensorflow, PyTorch, HTML/CSS, JavaScript, React, Vue.js

Interests: Crosswords, crochet, skiing, playing Tractor (card game)