Katherine Xiong

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Education

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, Concentration in Human-Computer Interaction   Class of 2023

Relevant Coursework: Software Studio, Embedded Systems, Algorithms, Introduction to Machine Learning, Intelligent Multimodal User Interfaces (Grad), Computer Systems Security (Grad), Theory of Computation (Grad), Robotic Manipulation (Grad)

Experience

MIT Software Design Group   **Cambridge, MA**
Research Assistant   September 2022 – Present
- Studying dark patterns in software design for my MEng thesis – systematically identifying, characterizing, and analyzing dark patterns in mainstream web apps, then proposing corrections and tech policy changes to resolve them

J.P. Morgan   **London, UK**
Trading Intern   June – August 2022
- Equity Derivatives Desk (Corporates) – Wrote a script to compute an optimized basket of volatilities to buy against desk short positions, learned options theory, developed trade ideas, helped price enhanced share buybacks

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**
Software Engineering 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

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

Leadership

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

MIT EECS Research and Innovation Scholar
3x American Invitational Mathematics Exam Qualifier (Score: 9)
Siemens Competition Semifinalist

Skills & Interests

Software: Java, Python, C++, Scala, HTML/CSS, Tensorflow/PyTorch, JavaScript, React, Vue.js
Interests: Crosswords, crochet, skiing, playing Tractor (card game)