

# Katherine Xiong

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## Education

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### Massachusetts Institute of Technology

Class of 2022

B.S. in Computer Science, GPA: 4.9/5.0

Relevant Coursework: Software Construction, Software Studio, Design and Analysis of Algorithms, Introduction to Machine Learning, Computation Structures, Embedded Systems, Real Analysis, Probability and Random Variables, Fundamentals of Statistics

## Experience

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### 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 City, NY

*Trading Winter Analyst*

January 2020

- Sat on Portfolio Risk/Index Strategy and ETF Trading desks
- 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

### MIT Computer Graphics Lab

Cambridge, MA

*Research Assistant*

September 2020 – Present

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

### UNT Computational Epidemiology and Response Analysis Lab

Denton, TX

*Research Assistant*

October 2016 – April 2018

- Developed a dynamic model in Java to simulate the spread of viral, vector borne diseases using temperature and spatial constraints not considered in previous models
- Co-authored a journal article titled "Modeling the 2013 Zika Outbreak in French Polynesia: Intervention Strategies"

## Projects

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### Music Sync Lights

February - May 2020

- Built an end-to-end LED light system that can automatically sync to music or be programmed on a user interface

### NutriChef

September 2020

- Built a website in React that finds healthy recipes using items in your refrigerator and visualizes nutrients in your meal

## Leadership

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### MIT Global Teaching Lab

Sao Paulo, Brazil

*Teacher*

January 2019

- Implemented 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

### MIT THINK Scholars Program

Cambridge, MA

*Corporate Relations Lead, Mentor*

September 2019 - Present

- Organized a research competition for high school students with over 350 participants nationwide, judged and selected six finalist proposals each year, and mentored three students through the implementation of their projects
- Founded and led corporate relations committee, raising over \$2500 in company sponsorships

## Awards

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MIT EECS Research and Innovation Scholar

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

Siemens Competition Semifinalist

Girl Scout Gold Award

## Skills & Interests

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

Interests: Dance, crosswords, photography, crochet, skiing, playing Tractor