

Katherine Xiong

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Education

Massachusetts Institute of Technology

Class of 2022

Candidate for B.S. in Computer Science, GPA: 5.0/5.0

Relevant Coursework: Design and Analysis of Algorithms, Introduction to Machine Learning, Computation Structures, Fundamentals of Programming, Real Analysis

Experience

Philips

Eindhoven, The Netherlands

Research Intern

June – August 2019

- Trained neural networks to predict respiratory-related hospitalizations based on air pollution concentrations
- Analyzed Google Trends data for correlations between air pollution and symptoms of asthma and COPD

MIT Urban Mobility Lab

Cambridge, MA

Research Assistant

September 2019 – Present

- Developed time-series forecasting models for short term travel demand of public transit in Hong Kong

UNT Computational Epidemiology and Response Analysis Lab

Denton, TX

Research Assistant

October 2016 – April 2018

- Improved and combined two individual disease models into a comprehensive, dynamic model in Java to simulate the spread of viral, vector borne diseases
- Co-authored a journal article titled “Modeling the 2013 Zika Outbreak in French Polynesia: Intervention Strategies”

Jane Street Women in STEM

New York City, NY

Participant

July 29 – 31, 2018

- One of 80 students selected to visit Jane Street headquarters to learn about quantitative trading and stock markets, participate in mock trading, and network with Jane Street employees

Projects

Interactive Map

March 2019 – June 2019

- Built a website for the Boston Children’s Museum hosting an interactive map with pop-up descriptions for each exhibit

ReCon

September 2019

- Developed a website at HackMIT to scan receipts using the Microsoft Azure Computer Vision API and visualize your spending

Leadership

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

Mu Alpha Theta

Denton, TX

President

2014 – 2018

- Organized weekly general assemblies, pioneered competition math classes for members to prepare for local and national math competitions, and implemented other new initiatives (e.g. diverse competitions, more outreach)
- Grew the club from 15 to over 40 active members

Awards and Honors

American Invitational Mathematics Exam Qualifier

2015, 2017, 2018

Siemens Competition Semifinalist

2017

USA Computing Olympiad Gold Division

2017

Girl Scout Gold Award

2018

Skills

Software: Java, Python, HTML, CSS, JavaScript, SQL

Languages: English - fluent, Chinese – fluent