

Education

Massachusetts Institute of Technology

Cambridge, MA

Candidate for Master of Engineering in Computer Science

May 2021

Bachelor of Science in Computer Science and Engineering

May 2020

Relevant Courses: Elements of Software Construction, Operating System Engineering,
Design and Analysis of Algorithms, Computer Systems Security

GPA: 4.9/5.0

Work Experience

MIT Computer Science and Artificial Intelligence Laboratory

Cambridge, MA

Undergraduate Researcher (UROP)

September 2019 – present

- Optimize and benchmark sparse linear algebra operations in largescale applications.
- Evaluate existing methods and write new kernel implementations in C/C++, utilizing cache optimizations, data prefetching, and parallelization.

Google

Cambridge, MA

Software Engineering Intern

May - August 2019

- Built and deployed server to simulate vendor interactions for Google Photos Printing team.
- Implemented RPC service and HTTP API in Java to interface with existing infrastructure and appropriately manage simulated orders.
- Designed asynchronous task flow to simulate timing of order notifications and updates.

Engineering Practicum Intern

June – August 2018

- Created search interface for products to improve order fulfillment for Google Express team using AngularDart.
- Implemented server-side REST APIs to orchestrate across multiple APIs and datastores in Java.
- Collaborated with intern project partner, using Git for version control, and completed code development process.

MIT Laboratory for Atomistic and Molecular Mechanics

Cambridge, MA

Undergraduate Researcher (UROP)

September 2017 – December 2018

- Evaluated current machine learning methods to predict protein secondary structure and disorder and implemented neural networks to evaluate model performance using Keras/Tensorflow.
- Modeled silk proteins with Gromacs software and visualization in Visual Molecular Dynamics.
- Co-authored publication of results (Liu et al. Spider Dragline Silk as Torsional Actuator Driven by Humidity. *Science Advances*. 2019). Presented project at 2018 Engineering Mechanics Institute Conference at MIT.

Leadership Experience

MIT McCormick Hall House Government

Cambridge, MA

Vice President/Treasurer

January 2019 – January 2020

- Manage budget of over \$25000 and execute dorm-wide initiatives in sustainability and outreach.
- Oversee 30 committee chairs and assist in event planning, ideation, and connection to campus resources.

MIT Model United Nations

Cambridge, MA

Director of External Operations

May 2019 - present

- Plan and execute MIT Model United Nations Conference for high school students.
- Co-lead outreach program for local high school students, introducing students to Model UN and research skills.

Skills and Activities

Programming: Proficient in Java, Python, C/C++, HTML/CSS, MATLAB. Familiar with JavaScript, React, Angular.

Activities: MIT Resident Peer Mentor Program, MIT Tau Beta Pi, MIT Eta Kappa Nu, MIT Quidditch.