

Claire Lu

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EDUCATION

Massachusetts Institute of Technology

M.Eng. May 2025

- Candidate for M.Eng. in Electrical Engineering and Computer Science
- Relevant Coursework: Algorithms, Machine Learning, Robotics, Computation Structures, Signal Processing, Signals Systems and Inference, Efficient Machine Learning, Computer Vision, Natural Language Processing

B.S. May 2024

GPA: 4.9/5.0

EXPERIENCE

Computational Biology Researcher

Sep. 2024 - Present

Whitehead Institute for Biomedical Research, Li Lab

- Developing ML models to predict stem cell responses to various chemical signals

Software Engineering Intern

June 2024 - Aug. 2024

Databricks, Unity Catalog (UC) Access Control Team

- Implemented new MANAGE privilege in UC that grants almost owner-level power to other users
- Successfully implemented privilege across all Databricks entities and incorporated into UC authorization model, ensured robust test coverage by writing new tests, led bugbash with wider org.
- Collaborated cross-functionally with other technical teams and product to scope out the new privilege

Software Engineering Intern

May 2023 - Aug. 2023

Illumina, Advanced Devices R&D Group

- Designed data management system to efficiently store 100,000 channels producing 7 Gb/s of data
- Implemented and conducted speed tests for writing and retrieving data with various file formats
- Created Python scripts to quantify and correct crosstalk in electrical sequencing data; scripts included in potential patent filed by Illumina

Software Engineering Intern

May 2022 - Aug. 2022

Google, YouTube Policy Enforcement & Protections

- Designed automated system to manage takedown flags on over 800k channels, videos, and playlists
- Analyzed existing data, wrote and presented design proposal, implemented code and wrote unit tests
- Collaborated with engineering and product teams across YouTube to create most efficient design

Self-Modeling Agents Undergraduate Research

Sep. 2021 - Jan. 2022

MIT Yang Lab for Computational Neuroscience (now Altera)

- Implemented predictable obstacle movement in PyTorch for artificial neural network agents
- Used reinforcement learning to train agents with variations of planning modules in 2D game world
- Evaluated model architectures for reconstructing images, found optimal parameters

LEADERSHIP

Introduction to Machine Learning (6.3900), Teaching Assistant

Jan. 2023 - May 2024

- Assist class of ~400 students with course for 6 hours / week; develop course content

Ring Committee 2024, Vice Chair

June 2021 - May 2022

- Directed 12-person committee in designing, presenting, and distributing the MIT 2024 class ring
- Partnered with MIT administration to reserve campus spaces, external vendors and venues, and class body (~1100 students) through surveying opinions and hosting open forums for feedback

SKILLS & INTERESTS

Programming: proficient in Python, Jupyter, Matplotlib, PyTorch, SQL, MATLAB; skilled with C/C++, Scala

Arts: science fiction, digital illustration, drawing, creative writing, design, Chinese folk dance