Claire Mao

781-228-3575 | cmao22@mit.edu | linkedin.com/in/clairemao-/

EDUCATION

Massachusetts Institute of Technology · Cambridge, MA
Bachelor of Science in Mathematics with Computer Science, Minor in Music · *Aug 2022 – May 2026*
Coursework: Deep Learning, Machine Learning, Design & Analysis of Algorithms, Probability, Statistics, Web Design

GPA: 4.7/5.0

WORK EXPERIENCE

Boston Consulting Group · Boston, MA
Summer Associate - Received Full-Time Return Offer · *Jun 2025 – Aug 2025*
- Identified over $20M cost savings for a national postal service by developing scalable Python data pipeline (pandas); designed with intuitive workflow to enable adoption by non-technical staff
- Redesigned a local nonprofit's website to increase donor engagement by improving navigation and usability; prototyped new layouts and features based on user behavior analysis
- Conducted expert interviews and presented website redesign strategy to nonprofit executives, aligning leadership buy-in and synthesizing insights into actionable recommendations across SaaS and resourcing decisions

NASA Jet Propulsion Laboratory (JPL) · Pasadena, CA
Software Engineering Intern · *Jun 2024 – Aug 2024*
- Developed a Python adapter that connected two previously incompatible software systems, enabling automated planetary atmosphere simulations and accelerating research workflows
- Validated simulation accuracy by generating chemical network of Venus and benchmarking results against published observations of SO_2 and OCS cycles in the atmosphere, strengthening confidence in the tool for future research
- Partnered with astrophysics researchers to co-author and present a poster at the Tenth International Conference on Mars (500–600 attendees), showcasing simulation results to the global research community

MIT Media Lab, Space Enabled Research Group · Cambridge, MA
Undergraduate Researcher · *Feb 2023 – May 2024*
- Optimized wax-based propulsion experiments, cutting melting time by 67% and demonstrating wax's potential as a safe, non-toxic propellant for spaceflight applications
- Led cross-functional research team spanning senior experts and junior undergraduates, mentoring peers and co-authoring a paper accepted to the 75th International Astronautical Congress (IAC 2024)

LEADERSHIP EXPERIENCE

The Tech · Cambridge, MA
Publisher - MIT's oldest and largest newspaper · *Dec 2023 – Present*
- Lead 100+ person team across editorial and operations; oversee budget, recruiting, and digital product strategy
- Review articles to ensure clarity, accuracy, and alignment with editorial standards for readership of over 24,000

Council for Math Majors · Cambridge, MA
Co-Chair · *Mar 2024 – Present*
- Represent 350+ undergraduates to department leadership; implemented open-source course evaluations and designed course roadmaps tailored to student need; spearhead community events to build engagement

PROJECTS

Roommate Chat App | *JavaScript, Vue.js, HTML/CSS, Git* · Apr 2025 – May 2025
- Prototyped a web-based roommate-finding chat platform with profile creation, group chats, and search to practice end-to-end product design and feature prioritization

Wikipedia Page Ranking | *Python* · Nov 2024 – Dec 2024
- Implemented and evaluated Google's PageRank algorithm on Wikipedia data, visualizing how design choices impact fairness and influence

TECHNICAL SKILLS

Languages: Python (pandas, NumPy, Matplotlib), JavaScript, HTML/CSS, SQL
Product and Analytics: Figma, Tableau, Microsoft Office, market research, usability testing, prototyping