

Michelle Liu

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EDUCATION

Brown University

Expected May 2025

Sc.B. Applied Math – Computer Science, GPA: 4.00/4.00

Providence, RI

Relevant Coursework: Machine Learning, Deep Learning, Computer Systems, Data Structures & Algorithms, Honors Statistics, Graph Theory, Abstract Algebra, Numerical Methods for PDEs, Operations Research

Awards: Robinhood Hackathon Bronze, Doyle Foundation Scholarship, Citadel Invitational Terminal, Harvard WECODE Fellow

University of Nevada Reno

May 2021

High School Dual Enrollment, GPA: 4.00/4.00

Reno, NV

Relevant Coursework: Game Theory, Topology, Real Analysis, Number Theory, Calculus III, Linear Algebra, Microeconomics

Awards: AIME Qualifier, National Science Bowl Top 32, National Merit Scholar, Canada/USA Mathcamp Alumni

EXPERIENCE

JP Morgan & Chase

May 2023 – Aug 2023

Incoming Software Engineer Intern

New York, NY

Brown University

Aug 2022 – Present

Undergraduate Teaching Assistant

Providence, RI

- Develop assignments, workshops, and projects as well as assist over **300 students** in office hours
- Statistical Inference (Spring 2023), Graduate Machine Learning (Spring 2023), Functional Programming (Fall 2022)

Visual Prosthesis Lab

Sep 2022 – Dec 2022

Undergraduate Research Assistant

Providence, RI

- Research and implement **computer vision** frameworks in **Python** to assist visually impaired individuals with navigation
- Develop visual prosthetic devices with object localization utilizing YoloV5, grasping utilizing Text2Voice, and OCR

Western Digital

May 2022 – Aug 2022

Software Development Engineer Intern

Milpitas, CA

- Designed test prioritization algorithm using **Python** and **machine learning**, increasing test cycle efficiency by over 50%
- Constructed regression, random forest, and neural network models to predict test failures with 95% accuracy
- Utilized **FastAPI** and **SQL** queries to access and post algorithm performances on **Elasticsearch**

Jane Street

Mar 2022

First-Year Trading and Technology (FTTP) Fellow

New York, NY

- Selected as one of 60 students for this highly competitive program to learn market-making and algorithmic trading
- Programmed trading bot in **Python** placing **3rd in electronic trading competition**

ACTIVITIES & LEADERSHIP

Applied Math Dept. Undergraduate Group | President

Mar 2022 – Present

- Lead club of over **200 students** and collaborate with board members to organize events like industry panels and mixers
- Manage over **\$600 budget** and organize social outreach as well as website 📄

Brown Machine Intelligence Community | Executive Board (Content/Teaching)

Oct 2022 – Present

- Build and lead machine learning workshops such as song generation with GPT-2, MNIST, and neuro style transfer

Anime Video Game Ensemble | Co-President & Founder

Sep 2021 – Present

- **Founded club** and recruited over **70 members** to arrange and perform anime and video game music in biannual concerts
- Orchestrate club management, weekly rehearsals, and social media including YouTube channel with over **4k views** 📺

PROJECTS

Jreamboard | React, Node.js, Express 🐙

- Created a podcast social media web application for the Jream Foundation at the JP Morgan **Code for Good Hackathon**
- Prototyped frontend using **Figma** and implemented UI using **React**, designing a login and audio posts page
- Constructed backend architecture using **Express** and **PostgreSQL** to store audio and account information

Citadel Datathon | Python 🐙

- Collaborated with team members to analyze geographical discrimination of loan applications using k-means clustering
- Utilized **NumPy**, **pandas**, **seaborn**, **SciPy**, and other Python libraries to construct visualizations

SKILLS

Languages: Python (proficient); Javascript, HTML/CSS, ReasonML, (intermediate); C, Java, SQL, MATLAB (novice)

Frameworks & Tools: Git, NumPy, Tensorflow, Node.js, React, Express, PostgreSQL, Figma, WordPress