

# Michelle Liu

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## EDUCATION

### Brown University

Bachelor of Science, Applied Math – Computer Science, GPA: 4.00/4.00

Providence, RI

Sep 2021 – May 2025

- **Awards:** Kleiner Perkins Fellow, Robinhood Hackathon Bronze, AIME Qualifier, Rohn Truett Prize in Applied Mathematics

## EXPERIENCE

### Databricks

Software Engineer

Oct 2025 – Present

Mountain View, CA

- Refactored tool-call UI for Databricks Assistant, redesigning agent–tool interaction surfaces and implementing changes in **React** and **TypeScript**
- Improved frontend reliability and maintainability via architectural refactors, **Playwright** test suites, and probes

### Figma

Software Engineer Intern

Jun 2025 – Aug 2025

San Francisco, CA

- Developed custom stroke endcap sizing feature within Figma's Core Experience team, with **C++**, **React**, and **TypeScript**
- Engineered geometry and SceneGraph logic to enable precise, user-controlled cap sizes through vector math
- Collaborated with designers to iterate the stroke settings panel design, shaping the endcap controls and overall **UI/UX**

### Lightspeed

Data Science Intern

Jan 2024 – May 2025

Providence, RI

- Developed an LDA-based restaurant cohorting model optimize menu pricing and drive revenue growth
- Analyzed transactions using BigQuery to uncover sales patterns during holidays, informing restaurant strategy
- Developed sales and tip trend analyses using **Google Cloud Platform** Dataform and **SQL**, with Looker for strategic planning
- Led initiative to optimize table pacing, leveraging statistical models (**scikit-learn**, **pandas**) for over 5,000 restaurants

### Susquehanna International Group

Quantitative Trading Intern

Jun 2024 – Aug 2024

New York, NY

- Modeled the impact of attention effects on stock price volatility leading up to earnings reports and events using Python, applying **time series analysis** and statistical testing
- Executed real-time trading strategies and risk management in simulated **electronic mock trading** sessions

### Brown University

Undergraduate Teaching Assistant

Aug 2022 – Dec 2023

Providence, RI

- Assisted over 300 students and designed over 10 assignments for **NLP**, statistics, and **machine learning** courses

### JPMorgan Chase & Co.

Software Engineer Intern

Jun 2023 – Aug 2023

Jersey City, NJ

- Built a data pipeline using **Splunk** and **AWS** to extract and preprocess call center log data, improving data accessibility
- Implemented outlier detection and classification models, achieving over 90% accuracy in identifying irregular calls
- Created time series models to find trends in problematic calls across various regions, supporting over 10,000 call specialists

## PROJECTS

### Jreamboard | React, Node.js, JavaScript, Express 🔄

- Developed a podcast and audio-based social media web application for the Jream Foundation
- Prototyped frontend using **Figma** and implemented UI using **React**, designing a login and audio posts page
- Built backend architecture with **Express** and **PostgreSQL** to store audio and account information

### IntelliGin | Python 🔄 🌐

- Developed a Double DQN (Deep Q-Network) reinforcement learning model for Gin Rummy, employing experience replay, self-play and adversarial strategies, achieving performance on par with rule-based adversaries and random agents
- Implemented custom environment in RLCard for Gin Rummy, including engineered feature extraction

### Caching I/O | C

- Designed caching system for file reading and writing, achieving 31% faster performance than C's standard library

### North Burial Ground | R, HTML/CSS, Adobe Illustrator 🌐

- Partnered with Providence government to publish historical burial trends at historic cemetery using **ggplot2** and Illustrator

## SKILLS

**Languages:** Python (proficient); C, C++, SQL, JavaScript, TypeScript, HTML/CSS (intermediate); R, MATLAB (novice)

**Frameworks & Tools:** React, TensorFlow, PyTorch, Git, Docker, Google Cloud Platform, Amazon Web Services, Microsoft Office