

# MICHAEL SUN

450 Memorial Drive, Cambridge, MA 02139

857-505-5310   [sun\\_m132@mit.edu](mailto:sun_m132@mit.edu)   [www.linkedin.com/in/michael-sun-mit/](https://www.linkedin.com/in/michael-sun-mit/)   [github.com/xmike-yyy](https://github.com/xmike-yyy)

## EDUCATION

### Massachusetts Institute of Technology

Cambridge, Massachusetts

*Bachelor of Science - Computer Science and Engineering & Mathematics; GPA: 5.0*

*May 2026*

*Relevant Courses: Introduction to Python, Fundamentals of Programming, Discrete Mathematics, Multi-Variable Calculus, Linear Algebra*

*Activities: MIT Solar Electrical Vehicle Team, MIT Institute of Electrical and Electronics Engineers Freshman Representative, Talented Scholars, FLI@MIT, Interphase EDGE, Undergraduate Mathematics Association*

## SKILLS SUMMARY

**Proficient In:** HTML/CSS, JS, Python, R, Arduino, Jupyter, Machine Learning, Version Control (Git), Swift

**Interests:** Statistics & Probability, Mathematical Modeling, Optimization and Testing, Computational Algorithms

## EXPERIENCE

### Two Sigma

New York, NY

*New Seeker's Summit*

*January 2023*

- One of 150+ accepted globally to Two Sigma's annual New Seeker's Summit to learn more about Two Sigma's research methods and quantitative analysis.

### Jane Street

New York, NY

*FOCUS Attendee*

*January 2023*

- One of 50+ accepted to learn more about Jane Street's trading, software engineering, and business development.
- Strengthened interview skills with logic, probability, and coding puzzles

### MIT Lincoln Labs: Active Optical Systems Group

Cambridge, MA

*Student Researcher*

*September 2022 - Present*

- Implementing **sorting and path-finding algorithms** to optimize recorded geospatial data by 10%.
- Improving **machine learning algorithms** for image registration on existing lidar datasets by 5% in memory usage.

### MIT Solar Electrical Vehicle Team

Cambridge, MA

*Backend Developer*

*September 2022 - Present*

- Researching 3 different Python frameworks to implement on the interactive monitor's **Raspberry Pi**
- Programmed 500+ lines **Tkinter** and **PyQt** to implement touchscreen user features to improve overall **UI/UX**

### Jane Street

New York, NY

*Unboxed Intern*

*July - August 2022*

- Strengthened skills in **probability, game theory, analytical problem-solving, OCaml programming principles**
- Programmed API-scrappers and a **Discord Bot** that **utilized the New York Times API** to return the hottest news today upon command (Currently on 50+ servers).

### Goldman Sachs

Remote

*FinTech Focus Interns*

*June 2022 - July 2022*

- Designed and engineered** prototypes and MVPs into **web applications with MongoDB, Python, HTML/CSS, Bootstrap, and Flask.**
- Presented to Bank of America, Wells Fargo, Goldman Sachs, J.P. Morgan Chase, and Morgan Stanley.

## PROJECTS

**MIT-NASA Momentum Project (Python, Data Science, Physics/Mathematical Modeling):** Programmed a simulator to slow down a spacecraft as it approaches Neptune's orbit with **differential functions** and **AR/VR & Matplotlib** development

**PokerBots (Python, Game Theory, Machine Learning):** Built a poker trading bot using **neural networks** and **cluster classification** to participate in MIT's annual PokerBots competition; **Top 10** bots in the freshman class.

**OceanHackWeek Hackathon (Data-Visualization & Modeling):** Contributed to **open-source** project (200+ lines) of **analyzing** Alaskan earthquake databases and **devising** a GIF generator of seismic waves using **time-series** data.

**Portfolio Website (Bootstrap, Flask, HTML/CSS):** Personal portfolio page to keep my relevant projects and experiences as an online documentation; link: [xmike-yyy.github.io/xmike-yyy/](https://xmike-yyy.github.io/xmike-yyy/) (currently rebuilding with React)

**World Cup Predictor (Python, Pandas, Probability):** Created predictor with **Poisson Distribution** and **sci-kit learn** that has predicted up to **65% accuracy** in all matches for 2022 Qatar World Cup.

**Sudoku Solver (Python):** Programmed a Sudoku Solver with **backtracking algorithms** to solve within **0.1 seconds**

## HONORS AND AWARDS

**MIT Undergraduate Mathematics Puzzle: Winner** of the November competition.

**Gates Scholar - Cohort V:** One of the **300 students** selected among the **37,000+ applicants** to receive a **full-ride scholarship** from the Bill and Melinda Gates Foundation.

**Questbridge National College Match Scholar:** One of the ten Questbridge students (**nationally recognized first-generation-low-income**) chosen from **16500+** that's offered a **full-ride scholarship** to MIT.

**Asian Pacific Islander Association Scholar (APIA):** One of **450 scholars** chosen from **22,500+** applications (2%). Chosen to be sponsored by **Cox Enterprises** to receive a **\$10,000 scholarship** to cover my education costs.