

MICHAEL SUN

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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

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, and analytical problem-solving**.
- Practiced introductory **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.

Stanford University

Palo Alto, California

Research Intern

June - August 2021

- Conducted **Natural Language Processing** research on climate change misinformation under the EECS Department.
- **Conceptualized, programmed, and tested** a 300-line Twitter Scraper to assist with research.

PROJECTS

OceanHackWeek Hackathon (Matplotlib, DataFrames, X-Arrays, Modeling): Contributed to **open-source** project of **analyzing** Alaskan earthquake databases and **visualizing** its seismic waves by **devising** a GIF generating model using **time-series** data and **scatter-plots**.

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/

World Cup Predictor (Python, Pandas, Probability): Created predictor with **Poisson Distribution** and **DataFrames** that has predicted up to **70% accuracy** in all matches.

Sudoku Solver (Python): Programmed a Sudoku Solver with **dynamic programming** and **backtracking algorithms** to solve NYTimes Hard in less than **0.1 seconds**

Keep: Business Model (Bootstrap, Flask, Web-Development): Web-Application built from Flask and Python to make profit/loss calculations/recommendations.

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.