

Ivy Yip

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EDUCATION

Massachusetts Institute of Technology

May 2028

Candidate for BS in Computer Science and BS in Math

GPA: 5.0/5.0

Relevant Coursework: Intro to ML (6.3900), Intro to Algorithms (6.1210), Fundamentals of Programming (6.1010), Probability and Random Variables (18.600), Discrete Math (6.1200), Web Lab (6.9620)

Westlake High School

May 2024

Class Rank: 6 out of 693 students; GPA: 106.024/100

Austin, TX

EXPERIENCE

Fluid Interfaces @ MIT Media Lab

Feb. 2025 – Present

Undergraduate Researcher

Cambridge, MA

- Engineered experimental interfaces in React.js and React Native for cognitive state studies on fatigue and auditory processing
- Developed mobile intervention apps that monitor engagement and deploy techniques like screen-locking and timed notifications for study deployment with 15–20 users
- Built PostgreSQL-based backend for real-time user state tracking and data logging
- Designed and trained machine learning models to analyze participant behavior and evaluate intervention efficacy

MIT Election Lab

Jan. 2025 – May 2025

Undergraduate Researcher

Cambridge, MA

- Built scalable Python web crawlers aggregating 15+ years of state legislative election policies data
- Fine-tuned LLMs to classify election law content by impact on processes like logistics, registration, and absentee voting
- Maintained scrapers and classification pipelines in collaboration with graduate researchers via GitHub

Texas State University

Aug. 2023 – Aug. 2024

Student Researcher

San Marcos, TX

- Initiated independent research project to analyze news propagation on social media under Professor Chul-Ho Lee
- Extracted influence patterns through graph-based models to identify high-impact users

Yale Summer Program in Astrophysics

July 2023 – Aug. 2023

Summer Program Participant (1 of 36 from 800+ applicants)

New Haven, CT

- Conducted optical observations of a distant supernova using professional-grade telescopes
- Co-authored a research paper modeling supernova light curves using Python and astrophysical tools

PROJECTS

Picventure

Jan. 2025 – Feb. 2025

Web Lab: A Web Programming Class and Competition 6.9620 [code]

- Built a MERN-based social challenge platform with AWS S3 and an Express backend using RESTful APIs
- Automated daily photo challenges via cron jobs and implemented user interaction updates

MIT Motorsports

Sept. 2024 – Feb. 2025

Software Telemetry Team Member

- Developed live telemetry dashboard in Next.js to visualize real-time race car sensor data
- Integrated 3D models into UI and implemented secure authentication for dashboard access

FIRST Robotics Competition (FRC), Team 2468 Team Lead / Member

Feb. 2022 – May 2024

World Championship Division Finalist / 1 of 6 Chairman's Finalists at World Championship

- Led 15-member Intelligence & Strategy team in data-driven competition planning
- Developed full-stack app for match data collection and scouting; used by 70+ members during events
- Implemented visualization tools to drive alliance strategy and optimize gameplay

SKILLS & INTERESTS

Programming Language/Framework: Python, Java, Javascript/Typescript, React.js/React Native, Next.js, HTML/CSS, SQL/PostgreSQL, MongoDB, AWS (S3), Git/Github

Languages: English (fluent), Chinese (Mandarin & Cantonese) (fluent)