

# Adam Zweiger

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## EDUCATION

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### Massachusetts Institute of Technology

Fall 2023 – Present

*BS in Computer Science and Engineering, GPA – 5.0/5.0*

- Relevant Coursework (Including Current Enrollment): Advanced Algorithms (G), Machine Learning (G), Deep Learning (G), Statistics, ML and Data Science in Politics, web.lab, Computation Structures
- HackMIT Organizing Team

### Carlmont High School / Stanford Online High School

Fall 2019 – Spring 2023

*High School Diploma, GPA – 4.0/4.0*

- Stanford OHS Coursework in Math and Physics: Linear Algebra, Differential Equations, Modern Algebra, Real Analysis, Complex Analysis, Modern Physics
- Euler Circle Advanced Classes: Markov Chains, Complex Analysis, Generating Functions

## EXPERIENCE

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### Software Development Intern | Amazon Web Services

Summer 2024

- Worked with AWS live video transcoding service used for major political events, news broadcasts, and sporting events
- Implemented predictive autoscaling for cloud compute usage with ML model analyzing user patterns and video compressibility

### 6.390 (Intro to ML) Lab Assistant | MIT EECS

Spring 2024

- Helped students understand fundamental ML concepts during labs and office hours

### Software Development Intern | Probius

Summer 2022

- Worked for deep-tech company bridging the data gap between biology and AI with Quantum Electrochemical Spectroscopy to diagnose diseases
- Worked with data analysis, ML, and 3D visualization in Python to interpret large amounts of data from blood scans

## PROJECTS

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### HackMIT | Full-Stack Development (Typescript, React, Flask, Redis, AWS)

February 2024 – Present

- Worked on hackmit.org website and Pigeon, a RAG-powered email response client
- Created CTF-style admissions puzzles

### HexBlend | Full-Stack Development (MongoDB, Express, React, Node)

January 2024

- **First-Place Winner** in MIT's web.lab competition out of 89 participants and awarded \$3,000
- Built popular multiplayer game with MERN and WebSocket

### Israel-Palestine Sentiment Analysis | Data Science (OpenAI API, Mastodon API, Pandas)

November 2023

- Researched public sentiment dynamics on the Israel-Palestine conflict over time for MIT's 17.835 (ML in Politics)
- Used GPT-4 API for sentiment analysis of over 50,000 social media posts and news headlines related to the conflict

## HONORS & AWARDS

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Putnam - Top 200 Scorer

USA Physics Team - Member of US Physics Olympiad Team in 2022

USA Mathematical Olympiad (USAMO) - Honorable Mention in 2023

USA Mathematical Talent Search (USAMTS) - 1st Place in 2021

USA Computing Olympiad (USACO) - Platinum Division

Meta Hacker Cup - Top 3% worldwide in 2021

Canada/USA Mathcamp - Attendee in 2021 and 2022

Atlas Fellow - Awarded \$50,000 scholarship for big-picture thinking about science and philosophy