

Justin Zhou

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EDUCATION

Massachusetts Institute of Technology – Cambridge, MA
B.S. in Mathematics, Computer Science and Economics
Relevant Coursework: Introduction to Algorithms, Design and Analysis of Algorithms, Fundamentals of Programming, Probability and Random Variables, Mathematics for Computer Science, Linear Algebra, Differential Equations, Introduction to Machine Learning, Theory of Numbers
The Walker School – Marietta, GA
Valedictorian

Graduating May 2026
Major GPA: 4.8/5.0
May 2022
GPA: 103.41/100

EXPERIENCE

Ascend Analytics
Software Engineering Intern
• Back-end development with tech stack focusing on Python for BatterySIMM
• Developed software applications using Python and C++ in a team project environment
• Extended optimization algorithm for analysts on Clean Peak Energy
• Developed warranty guidelines for industrial battery optimizations
May 2024 – August 2024

Climate Change Research with Ruaridh Macdonald (PhD) and Odin Foldvik Eikeland
Undergraduate Researcher
• Co-authored published paper: “Cost-Effective Thermal Energy Grid Storage for Decarbonizing Electric Power Systems”
• Redesigned user experience through Python and Julia in the GenX model (an engine that generates highly configurable electricity resource capacity expansion models)
• Utilized the Pandas library from Python to obtain averages in data to use in the templates for user inputs
• Utilized the Benchmarktools library in Julia to identify areas of improvement; increased efficiency of the engine and decreasing memory usage each by 13%
• Ran cases on MIT’s SuperCloud (HPC) using Julia
Jan 2023 – Present

Coached (Platform providing professional athletes as direct mentors for students)
Software Engineering Intern
• Supported a startup as the first technical hire by setting up a secure payment method on Stripe
• Removed website access issue and debugged payment flow
June 2023 – Aug 2023

Portfolio Optimization Project with Professor Tom Magnanti
Main Project Lead
• Analyzed a portfolio of 35 stocks using metrics such as beta coefficients and covariance matrices (expanded to 50)
• Implemented methods of comparison and metrics for improvement (including the Sharpe Ratio)
Apr 2023 – June 2023

CodeForGood, Community Development Corporation Allston-Brighton
Consultant
• Volunteered for a consulting team that supports local non-profits through coding
• Pulled and cleansed over a decade worth of census data
Feb 2023 – May 2023

EXTRACURRICULARS

MIT Chess Club
• President, sponsor outreach, and social head
• 1800 USCF, 2400 online
Sep 2022 – Present

MIT Poker Club
Sep 2022 – Present

MIT Varsity Fencing Team
• 2023 The Big One 2nd place
Sep 2022 – Present

Pokerbots
• Placed 6th and 11th of 100+ teams for an MIT computerized poker tournament, won \$3500, and awarded “Best Freshman Team”
Jan 2023, Jan 2024

USA Computing Olympiad (USACO) Platinum Division Qualifier
Jan 2021

American Invitational Mathematics Examination (AIME) Qualifier
Feb 2020, Feb 2021, Feb 2022

The Ross Mathematics Program
Jun 2020 – Aug 2020

National Merit Scholarship Program Finalist
Sep 2021