Andrew Yuan

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

B.S. Mathematics, B.S. Computer Science and Engineering

Sep. 2023—Jun. 2026 **GPA:** 5.0/5.0

Relevant Coursework: Abstract Algebra I, Real Analysis, Probability & Random Variables, Intro to Machine Learning, Fundamentals of Programming, Web Lab, Linear Algebra, Multivariable Calculus, Macroeconomics, Science Writing

EXPERIENCE

WeRide.ai: Incoming Software Engineering Intern

Jun. 2024—Aug. 2024

Intern on the Mapping & Localization team at WeRide, an autonomous driving technology company.

University of Virginia Biocomplexity Institute: Research Intern

Jun. 2022—Jul. 2023

- Researched networked dynamical systems and combinatorial optimization on multi-agent networks.
- Proved expected performance bounds for approximation algorithms; solved combinatorial sub-problem via reduction to polyomino tiling; empirically validated algorithm performance via simulations.
- <u>Co-authored paper</u> published at AAMAS '23 (international conference). Won Regeneron STS Scholar for my research.

Johns Hopkins Applied Physics Laboratory: Data Science Intern

Oct. 2021—May 2022

- Interned through the ASPIRE program; investigated the relationship between climate change and human migration.
- Used Pandas in Python to process/organize 10 years of flood data from the Dartmouth Flood Observatory and population data from the US census; performed statistical analyses through regression modeling.

SpringGem Weather Information: Research Intern

Jun. 2020—Mar. 2021

- Researched road ice detection in drone images. Conducted field experiments and processed/analyzed images; my work
 validated the feasibility of detecting road ice using NDVI in calibrated RGN photographs.
- Co-authored paper presented at the 2020 American Geophysical Union (AGU) Fall Meeting.

HONORS & AWARDS

•	US Presidential Scholar; Regeneron Science Talent Search Scholar; National Merit Scholar	Jun. 2023
•	Putnam Math Competition Top 400	Dec. 2023
•	USAMO Qualifier, 2x USAJMO Qualifier, USAJMO Top 50	May 2022
•	USAPhO Semifinalist; USACO Gold Division	Feb. 2021
•	Harvard Quant Trading Competition: 2nd place overall	Mar. 2024

PROJECTS & EXTRACURRICULARS

Tradeswipe: Sole Developer

- Developed Tradeswipe, a two-sided marketplace for trading MIT meal swipes. Built frontend with React, REST API + backend server with Express.js/Node.js. Implemented authentication, live chat, and transactional emails.
- Obtained 420+ unique users and processed \$1200+ worth of transactions within 2 weeks of release.

Math4All: Founder and (Former) President

- Founded Math4All, a 501(c)(3) nonprofit dedicated to making competitive math more accessible.
- Led team of 40+ student volunteers; engaged 1000+ students from 20+ countries through free contests & classes.

Activities: MIT THINK (Co-Director 2024-25), Undergraduate Math Association (Social Chair 2024-25), Men's Club Volleyball, MIT Informatics Tournament, MAIA AI Safety Program

SKILLS

Programming Languages: Python, C++, Java, JavaScript/Typescript, HTML/CSS

Frameworks & Libraries: Numpy, PyTorch, React, Node.js, Express.js, MongoDB, SocketIO

Software & Tools: Git/GitHub, VS Code, Microsoft Office, Google Suite, LaTeX