# Michael Zuo

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- Self-motivated and quick learner with strong problem-solving skills
- Savvy computer programmer, mathlete, and athlete; excellent team member

## **EDUCATION**

### Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Mathematics, Bachelor of Science in Computer Science

May 2026

GPA: 4.00/4.00

Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms for Applications, Computer Organization and Programming, Programming with Python, Linear Algebra, Probability Theory, Applied Combinatorics

#### EXPERIENCE

### Quantitative Researcher

Jan. 2024 – Present

Trading at Georgia Tech

Atlanta, GA

- Working with a team to find correlations between daily market volatilities and pivotal turning points
- Utilize Python and specialized libraries to model Kernel Density Estimation

## **Applied Combinatorics Teaching Assistant**

Jan. 2024 - May 2024

Georgia Institute of Technology

Atlanta, GA

- Grading assignments and exams for 85 students in Applied Combinatorics
- Created many rubrics and double checked many regrade requests

## SIG Discovery Day Fellow

Feb. 2024

Susquehanna International Group, LLP

Atlanta, GA

- $\bullet$  Engaged in a hands-on market making workshop that brings financial theory to life
- Explored thrilling connections between probability theory and strategies in the world of game theory in basketball, football, and video games

### **SWOCA IT Project Internship**

May 2023 – Aug. 2023

Southwest Ohio Computer Association

Cincinnati, OH

• Built wireless network for SWOCA's customers (ex: middle/high/special education schools)

#### TECHNICAL SKILLS

Languages: Java, C, C++, Python, LC-3 Assembly, VB6, VB.NET, LaTeX

Frameworks: React Native

Developer Tools: VS Code, Eclipse, Intellij

**Certifications**: Lifeguard Certification, Red Cross CPR

## Clubs at Georgia Tech

Competitive Programming @ Tech

Trading Club @ Georgia Tech

Georgia Tech Swim Club

## **PROJECTS**

#### Malloc Implementation $\mid C$

Apr. 2024

- Programmed the heap to function like a linked list of free space
- Optimized the linked list to merge or break apart depending on called size

#### $\mathbf{ashMap} \mid \mathit{Java}$

Feb. 2024

- $\bullet$  Programmed a Hash Map backed by an Array that allows  $\mathrm{O}(1)$  average case key look up
- Uses linear probing as the collision resolution strategy

## Python Trivia Game | Python

Dec. 2023

- Developed a Trivia Game for the anime Garden of Sinners using Python
- Includes multiple challenging modes and a risk vs reward system for GT Anime Club with over 500 members

#### Java Startup Idea Generator | Java

Nov. 2023 – Dec. 2023

- Utilized JavaFX to make a GUI assist with generating startup problems and solutions
- Automatically loads data from a CSV file and allows for seamless saving

### AWARDS

Putnam Competition Top 30% (2024)

4-Time AIME Qualifier (2020, 2021, 2022, 2023), First Place ARML Team (2022)

USAPhO Semifinalist (2022)

Ohio District Swimmer (2022), Mason High School Varsity Swimmer (2019, 2020, 2021, 2022)