

Alyn Huang

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Education

University of Waterloo

Mathematics 4.0 GPA

Waterloo, ON

Expected Graduation: 2030

Coursework (Advanced): Abstract Algebra, Functional Programming, Real Analysis, Combinatorics, Algorithm Design and Data Abstraction

Skills

Languages: C++, Java, Python, Racket, HTML, CSS, C#, JavaScript, TypeScript, SQL

Frameworks/Libraries: NumPy, Pandas, Matplotlib, React

Tools: Git/Github, Figma, Unity, Cisco IOS

Experience

Canadian Mathematical Society Instructor

Toronto, ON

Lead Organizer, Instructor

2023–2024

- Led and presented at the 2023 and 2024 Math Experience Camps, fostering and inspiring **top 10% national math talent**, including an IMO team member
- Prepared and delivered lectures on mass point geometry and the usage of number theory in cybersecurity

Achievements

Citadel Women's Datathon

2026

- 1 of 80 (top 2%) invited to highly selective dataset problem-solving event

Jane Street WiSE

2025

- 1 of 60 invited to highly selective program exploring math and computer science concepts in trading

CyberPatriot XVII Cybersecurity Competition

2025

- Semifinalist at the highest (Platinum) division, Top 20 in Canada, Top 25% overall out of 5000+ teams

Canadian Computing Competition

2024

- Top 10% in Canada out of 10000+ competitors, Top 10 Female Competitor

Canadian Open Mathematics Competition

2022, 2023

- 2023: Top 200 in Canada, Top 20 Female Competitor, European Girls' Math Olympiad Team Selection Qualifier, Canadian Mathematical Olympiad Qualifying Repêchage Qualifier

- 2022: Top 10% in Canada, Invited to the 2023 Canada Math Camp hosted at the University of Toronto

North American Computational Linguistics Olympiad

2023

- 11th in Canada (Open Round), Invitational Round Qualifier (Top 10% in Canada and USA), APLO Qualifier

4x AIME Qualifier

2022–2025

Projects

GenAI and Healthcare Equity Markets | NumPy, Pandas, Seaborn, Matplotlib



- Built a multi-stage event study framework quantifying market reactions to **40+ GenAI pipeline events**, modeling pre/post-event abnormal returns across top-weighted S&P 500 healthcare constituents
- Conducted firm-level operational efficiency analysis linking AI workforce-agent adoption to financial outcomes, uncovering a mean **-13.6%** operating-cost delta and a moderate rank-cost correlation

Surface Integration Video | Python (manim)



- Created an animated educational video to visualize calculus surface integrals
- Leveraged **vector algorithms** to illustrate 2D-to-3D connections and enhance conceptual understanding