

Tristan Chaang
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Education

Massachusetts Institute of Technology , Cambridge, MA	September 2027
<ul style="list-style-type: none">• Candidate for Bachelor of Science in Electrical Engineering and Computer Science• Candidate for Bachelor of Science in Mathematics• Candidate for a minor in Physics• Relevant Coursework: Algorithms, Machine Learning, Electronics, Analysis, Abstract Algebra, Quantum Physics, Linguistics	GPA (N/A) (Freshman)
Sunway College , Kuala Lumpur, Malaysia	December 2022
<ul style="list-style-type: none">• Valedictorian, “Top in the World” and “Best Across Four Subjects” Award• Cambridge GCE A-Levels: 4 A* SAT: 1550 IELTS: 8• Coursework: Mathematics, Further Mathematics, Physics, Economics	

Experience

UROP , Department of Earth, Atmospheric, and Planetary Sciences, MIT <i>GPS/GNSS Jupyter Notebook Interface for Time Series Analysis</i>	Spring 2024
<ul style="list-style-type: none">• Develop a Jupyter Notebook that allows users to utilize time position series data• Integrate data from various GPS organizations into a user-friendly interface for easier access• Outline patterns and correlations from time series data to understand changes of Earth’s surface	
Undergraduate Teaching Assistant (UTA) , Department of Physics, MIT <i>UTA for 8.011 (Physics I / Classical Mechanics)</i>	Spring 2024
<ul style="list-style-type: none">• Help students during group activities• Grade problem sets on a weekly basis	
Undergraduate Research Opportunities Program (UROP) , Department of Mathematics, MIT <i>Investigating the Motion of Pilot-Wave Walkers in a Circular Corral</i>	Winter 2024
<ul style="list-style-type: none">• Study the behavior of droplets bouncing on a vibrating oil bath• Demonstrate the consistency of pilot-wave dynamics with quantum mechanics• Use MATLAB to model droplet dynamics and compare with experimental results	
Youth Stem Cup 2023 , Malaysia <i>Head of Problem Selection Committee (PSC)</i>	Summer 2023
<ul style="list-style-type: none">• Organize the first ever student-led national science Olympiad in Malaysia• Lead the PSC to: Invite problem setters, produce the exam paper, cross-check validity etc.• Successfully run the physical event with ~ 1200 participants from all over the country	
IMO Committee Malaysia , Malaysia <i>Trainer and Problem Selection Committee Member</i>	2021-2023
<ul style="list-style-type: none">• Train students in the IMO Selection Camp of Malaysia• Write handouts and set problems for camp tests and IMO shortlist proposals	
Academic Department, Kuen Cheng High School , Malaysia <i>Math Team Trainer, Math Presenter, Peer Learning Program Volunteer</i>	2018-2023
<ul style="list-style-type: none">• Trained and led the school team to win national first places in multiple large-scale contests• Give talks and interactive presentations to foster mathematical interest• Help students in academic need in math, physics and chemistry to fulfil graduation requirement	

Activities & Extracurriculars

Swimming Club, Sunway College, Malaysia 2021-2023

- Help the committee run pool activities and teach beginners breaststroke and freestyle

Science Week Opening Ceremony, Kuen Cheng High School, Malaysia 2019

- Plan and execute a large-scale performance for the annual science week
- Successfully performed a huge elephant toothpaste demonstration

Awards & Accomplishments

William Lowell Putnam Mathematical Competition by MAA 2023-2024

- Honorable Mention (Top 100)

International Mathematical Olympiad 2018-2022

- Bronze Medals (2020, 2022) and Honorable Mentions (2018, 2019, 2021)

Malaysian Physics, Computational Linguistics, and Economics Olympiads 2020-2022

- Silver and Bronze Medals

Chen Jing-Run Cup Math Contest by Xiamen University Malaysia 2017-2020

- National Champion for 4 consecutive years

Skills & Interests

Languages: Fluency in English, Mandarin Chinese, Cantonese and Malay

Software: Familiarity with Python, C++, LaTeX, MATLAB, Mathematica, Adobe (Ps, Pr, Ae, Ai)

Books: “Techniques for High School Mathematics Contests” (on Google Books)

Interests: Abstract Algebra, Topology, Quantum Physics, AI, Programming, Linguistics