

Tristan Chaang
Cambridge, MA | +1 (617) 642 1190 | tchaang@mit.edu
<https://tristanchaang.github.io>
<https://www.linkedin.com/in/tchaang>

Education

Massachusetts Institute of Technology , Cambridge, MA	June 2027
<ul style="list-style-type: none">• Candidate for Bachelor of Science in <i>Computer Science and Engineering</i>• Candidate for Bachelor of Science in <i>Mathematics</i>• Candidate for Minor in <i>Physics</i>• Coursework Highlights: Algorithm Designs, ML, Quantum Computation, Statistics, Natural Language Processing, Software Design, Topology, Analysis	GPA: 5.0/5.0 (Sophomore)
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	
Kuen Cheng High School (坤成中学) , Kuala Lumpur, Malaysia	February 2021
<ul style="list-style-type: none">• Star Student Award in 2019 for involvement in the International Math Olympiad• Malaysian <i>Certificate of Education</i> (SPM): 10A+, 2A• Coursework: 3 Languages, Advanced Math, 3 Sciences, World History, Chinese Literature	

Awards & Accomplishments

William Lowell Putnam Mathematical Competition by MAA	2023-2024
<ul style="list-style-type: none">• Honorable Mention (Top 100)	
International Mathematical Olympiad	2018-2022
<ul style="list-style-type: none">• Bronze Medals (2020, 2022) and Honorable Mentions (2018, 2019, 2021)	
Malaysian Physics, Computational Linguistics, and Economics Olympiads	2020-2022
<ul style="list-style-type: none">• Silver and Bronze Medals	
Chen Jing-Run Cup Math Contest by Xiamen University Malaysia	2017-2020
<ul style="list-style-type: none">• National Champion for 4 consecutive years	

Experience

MIT International Science and Technology Initiatives , Ivory Coast / Côte d’Ivoire <i>Global Teaching Laboratories, Mathematics</i>	Winter 2025 (Upcoming)
<ul style="list-style-type: none">• Provide math training for high school students, particularly the Ivorian Math Olympiad	
Undergraduate Researcher , CS & AI Lab (CSAIL), MIT <i>Self-Supervised Machine Learning Model for 3D Neurite Segmentation</i>	Fall 2024
<ul style="list-style-type: none">• Design and test self-supervised ML models to process large amounts of uncured 3D brain scan data• Train models using unlabeled electron microscopy data of the human and mouse cortex	
Teaching Assistant (TA) , EECS Department, MIT <i>TA for 6.1210 (Algorithms)</i>	Fall 2024
<ul style="list-style-type: none">• Hold weekly office hours and recitations for the class• Use animations I coded myself to present easier visualizations• Proctor and grade the final exam	

Undergraduate Researcher , Department of Earth, Atmospheric, and Planetary Sciences, MIT <i>GPS/GNSS Jupyter Notebook Interface for Time Series Analysis</i> <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 	Spring and Summer 2024
Teaching Assistant (TA) , Department of Physics, MIT <i>TA for 8.011 (Physics I / Classical Mechanics)</i> <ul style="list-style-type: none"> Help students during group activities Grade problem sets on a weekly basis 	Spring 2024
Undergraduate Researcher , Department of Mathematics, MIT <i>Investigating the Motion of Pilot-Wave Walkers in a Circular Corral</i> <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 	Winter 2024
Youth Stem Cup 2023 , Malaysia <i>Head of Problem Selection Committee (PSC)</i> <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 	Summer 2023
IMO Committee Malaysia , Malaysia <i>Trainer and Problem Selection Committee Member</i> <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 	2021-2023
Academic Department, Kuen Cheng High School , Malaysia <i>Math Team Trainer, Math Presenter, Peer Learning Program Volunteer</i> <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 	2018-2023
Activities & Extracurriculars	
Citadel Securities Quant Invitational Challenge , Miami <ul style="list-style-type: none"> 5-day quantitative trading competition for STEM sophomores on modeling market scenarios 	Winter 2024 (Upcoming)
2024 Discover Citadel and Citadel Securities , New York <ul style="list-style-type: none"> Explore and learn about different roles at Citadel through various activities and networking events. 	Spring 2024
Life on Stage Theater (LOST) , MIT <ul style="list-style-type: none"> Cast actor for one of the lead characters in a student-led theater play 	2024-Present
Swimming Club, Sunway College , Malaysia <ul style="list-style-type: none"> Help the committee run pool activities and teach beginners breaststroke and freestyle 	2021-2023
Science Week Opening Ceremony , Kuen Cheng High School, Malaysia <ul style="list-style-type: none"> Plan and execute a large-scale performance for the annual science week Successfully performed a huge elephant toothpaste demonstration 	2019

Skills & Interests

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

Software: Familiarity with Python, C++, C, JavaScript, HTML5, LaTeX, MATLAB, Mathematica

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

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