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   September 2027
- Candidate for Bachelor of Science in Computer Science and Engineering   GPA: 5.0/5.0
- Candidate for Bachelor of Science in Mathematics   (Sophomore)
- Candidate for a minor in Physics
- Relevant Coursework: Algorithms, Machine Learning, Electronics, Analysis, Abstract Algebra, Quantum Physics, Macroeconomics, Linguistics

Sunway College, Kuala Lumpur, Malaysia   December 2022
- 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

Teaching Assistant (TA), EECS Department, MIT   Fall 2024
UTA for 6.1210 (Introduction to Algorithms)   (Upcoming)
- Hold weekly office hours and recitations for the class
- Proctor and grade the final exam

UROP, Department of Earth, Atmospheric, and Planetary Sciences, MIT   Spring and
GPS/GNSS Jupyter Notebook Interface for Time Series Analysis   Summer 2024
- 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

Teaching Assistant (TA), Department of Physics, MIT   Spring 2024
UTA for 8.011 (Physics I / Classical Mechanics)
- Help students during group activities
- Grade problem sets on a weekly basis

Undergraduate Research Opportunities Program (UROP), Department of Mathematics, MIT   Winter 2024
Investigating the Motion of Pilot-Wave Walkers in a Circular Corral
- 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   Summer 2023
Head of Problem Selection Committee (PSC)
- 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   2021-2023
Trainer and Problem Selection Committee Member
- 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   2018-2023

Math Team Trainer, Math Presenter, Peer Learning Program Volunteer
- 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

2024 Discover Citadel and Citadel Securities, New York   Spring 2024
- Explore and learn about different roles at Citadel through various activities and networking events.

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)

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

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