Linus Yifeng Tang

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Education

Massachusetts Institute of Technology — Undergraduate student, c.o. 2028

Selected coursework: 18.A34, 18.212*, 18.619*, 18.655, 18.656*, 18.701, 18.702, 18.901*, 6.1220, 6.1903, 6.1910, 6.5610*, 6.7800

Current coursework: 18.217, 18.404, 18.785, 6.5220, 6.5250, 6.7480, 6.7960

* Class not taken for credit, due to MIT's first-year credit limit

Selected olympiad results

S.-T. Yau College Student Mathematics Contest 2025, Semifinals	Statistics round 5th place worldwide
William Lowell Putnam Mathematical Competition 2024	Score 63, rank 34
International Mathematical Olympiad 2024	Gold medalist
USA Mathematical Olympiad 2024	Gold medalist
Romanian Master of Mathematics 2024	Gold medalist
Asian Pacific Mathematical Olympiad 2023	Perfect scorer
USA Physics Olympiad	Honorable Mention 2023
USA Computing Olympiad	Reached Gold division 2020

Research

Tang, L. (2023). Extremal bounds on peripherality measures. *Discrete Mathematics Letters*, 12, 201–208. https://doi.org/10.47443/dml.2023.148

Geneson, J., & Tang, L. (2024). *Bounds on the price of feedback for mistake-bounded online learning*. arXiv. https://doi.org/10.48550/arXiv.2401.05794

Geneson, J., Li, M., & Tang, L. (2025). *Mistake-bounded online learning with operation caps*. arXiv. https://doi.org/10.48550/arXiv.2509.03892

Supervised Program for Alignment Research	Current research fellow
MIT Undergraduate Research Opportunities Program	Student 2024
Davidson Fellows Scholarship (link)	Fellow 2024
Regeneron Science Talent Search (link)	Top 40 finalist 2024
PRIMES-USA (link)	Participant 2023

Artificial intelligence

FrontierMath Benchmark — Problem author

In December 2024, I wrote and submitted math problems to Epoch AI's FrontierMath benchmark. Epoch AI used 10 of my problems on the benchmark, including 6 problems which they considered to be IMO/Putnam difficulty and 2 problems which they considered to be graduate program qualifying-exam difficulty.

FrontierMath Benchmark Human Baseline Competition — Participant

FrontierMath invited me to a competition in March 2025 where mathematicians attempted a selection of problems from the benchmark in order to establish a baseline for human performance on the FrontierMath benchmark. Problem difficulty ranged from undergraduate to early graduate level. I competed on a team of 5 and we won third place out of eight teams.

Mercor + xAI — AI Tutor October 2024 - January 2025

I worked part-time with Mercor and xAI to improve mathematical datasets used for training AI models. I solved math competition problems independently to ensure the accuracy of answers in a dataset. I also wrote original problems for the dataset.

MIT AI Alignment — Reading group Fall 2024, Member 2024-current

Since attending the Atlas Fellowship program in August 2023, I have been interested in the problem of AI alignment. In Fall 2024 I joined the MIT AI Alignment (MAIA) reading group for technical AI safety. I met weekly with the group to read and discuss papers on topics ranging from goal misgeneralization to sparse autoencoders. Shortly after the conclusion of the reading group, I became a member of MAIA in order to continue discussing AI safety weekly.

Cryptography

0xPARC — Intern June-August 2025

I interned at 0xPARC, an organization focused on cryptography research and development. I optimized a circuit which generates a zero-knowledge proof of a Schnorr signature. I studied several Fully Homomorphic Encryption (FHE) schemes. I worked on a team project to build a virtual machine whose inputs and outputs are encrypted, with the goal of enabling flexible privacy-preserving computation over multiple parties' data. I contributed to this project by implementing one FHE scheme, writing resources to help my teammates learn schemes quickly, and offering insight about the performance achieved by various methods of encrypted computation. Teaching and learning from my coworkers has been a deeply rewarding experience!

Obfustopia — Participant 2024

In November 2024, 0xPARC invited me to an event called Obfustopia, where we met in Thailand for four days before Devcon 2024 to discuss programmable cryptography and its potential to transform the internet. I was able to gain a lot from this event by talking to programmable cryptography researchers and engineers and studying papers on homomorphic encryption, functional encryption, and program obfuscation.

Summer Programs

Mathematical Olympiad Program — Participant 2021, 2022, 2024
Atlas Fellowship — Fellow and program participant 2023
Canada/USA Mathcamp — Participant 2022, 2023
Ross Mathematics Program — Participant 2021

Problem Writing

International Mathematical Olympiad 2025 — Problem 1 Author

I proposed a problem to the 2025 IMO and recently was pleasantly surprised to learn that it was selected to be the first problem on the test!

Harvard-MIT Math Tournament — Problem Writer 2024-current

As an HMMT problem writer, I write and test-solve problems for our two annual tournaments. I also help to select the shortlist of problems for tournament rounds.

ELMO — Jury 2022, 2023; Problem Selection Committee 2024

The ELMO is a math olympiad organized by returning Math Olympiad Program participants for newcomers. As a Jury member, I test-solved problems from each year's shortlist of about 30 problems and gave feedback that was considered during the creation of the 6-problem test. As a Problem Selection Committee member, I test-solved most problem proposals and helped in the selection of the shortlist and test. I also proposed problems for the 2023 and 2024 ELMO, including 12 problems published on the shortlists (2023, 2024) and 1 problem on the 2024 test.