

CHENGYUAN MA

500 MEMORIAL DRIVE, CAMBRIDGE MA 02139
(857) 928 8339 CHENGYUANMA@PROTONMAIL.COM

EDUCATION

Massachusetts Institute of Technology

2021–25

- SB and MEng in Computer Science
- Academic interests: computer architecture, performance engineering, compilers

Cumulative GPA: 5.0

WORK EXPERIENCE

Citadel – Global Quantitative Strategies

Jun–Aug 2023 & 24

Quantitative Research Engineer Intern

2024

- Developed framework for A/B testing execution algorithm latency and implemented optimizations for latency reduction

Quantitative Developer Intern

2023

- Designed configurable low-latency alternative data ETL pipeline

TECHNICAL SKILLS

- Language: English, Mandarin (native fluency)
- Programming languages: C++, CUDA, Rust, Python, TypeScript & JavaScript, Go, KDB/q, C#, Java

OTHER EXPERIENCE

DormSoup

2023–25

Cofounder and Tech lead

- Developed LLM-based event catalog application to help MIT students navigate campus-wide free-form advertising emails with Next.js, Postgres, and TypeScript
- Used model cascading to lower LLM cost and ensemble voting + fault-tolerant parsing to improve robustness
- App gained more than 1000 users; now officially recommended by MIT

MIT 6.1100 Computer Language Engineering

2025

Graduate Teaching Assistant

- Designed course material and led recitations.
- Developed fastest optimizing compiler (14k lines of Rust, targeting x86) in previous year as student

Competitive Programming

2016–22

- Developed proficiency in advanced data structures and algorithms
- 3rd Place at First-year Team Tournament, MIT Battlecode Competition (2022)
- Bronze Medal, National Olympiad in Informatics (China) (2020)
- Platinum, USA Computing Olympiad (2018–20)

RESEARCH

MIT Big-data Algorithms and Scalable Systems Group

2023–25

- Researched parallelizing compiler targeting CPU and GPU for verifiable computation
- Developed fast zero-knowledge cryptographic primitive (MSM) with WebGPU (ZPrize'24 4th place)

MIT d'Arbeloff Lab

2022–24

- Designed Mixed Reality app with novel joint alignment algorithm for robotic rehab therapy (IROS '23)
- Developed controller to coordinate robot's language and motion during therapy (RSS '24)

MIT InfoLab

2021–22

- Accelerated recursive MDP solver with CUDA to model social interactions between robots (AAAI '23)
- Built reinforcement learning environment with Unity and experiment RL algorithms