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Andi Liu

TypeScript, Python, OCaml
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EDUCATION

Massachusetts Institute of Technology (MIT) Sept 2021 - May 2025
B.S. in Computer Science and Master of Engineering Cambridge, MA
GPA : 5.0/5.0
Coursework: Advanced Algorithms (graduate), Software Construction, Statistical Analysis, Natural Language Processing, Machine Learning, Computer Networks, Computer Security

INTERNSHIPS

Software Engineer | Jane Street May - Aug 2024

- Designed an OCaml library for anomaly detection on time series pipe RPC data. Integrated with three internal apps.
- Instrumented a distributed system, versioning RPC protocol to attach metadata to trace performance metrics.
- Deprecated a file-based logging app with distributed database, enabling large-scale historical data studies.
- Implemented arbitrage strategies, ranked top 25% in Electronic Trading Contest. Trained in Pandas and regression.

Software Engineer | Capital One Jun - Aug 2023

- Developed frontend for Ozone UI, an internal dashboard used for AWS compliance with TypeScript, React, and Figma.

Software Engineer | AMD May - Aug 2022

- Fixed driver defects causing graphics corruption in games like *Minecraft* and *Metro Exodus* using Visual Studio in C++.
- Optimized *Fortnite* performance on AMD cards, achieving a notable 2% boost in frame rate.

PROJECTS & ACTIVITIES

TimeTrace Chrome Extension Jan 2024 - Present

- Developed and published Chrome extension [TimeTrace](#), a browser history manager, using SvelteKit and TypeScript.
- Led a [five-person team](#) of developers, PM, and UI designer. Set priorities and gave feedback in 1:1 sessions.
- Pitched at MIT\$100K, ranked semi-finalist (16/100+). Authored marketing and recruiting blogs. Filmed promo videos.

ChatGPT-powered MIT Event Platform Apr - Aug 2023

- Developed [frontend](#) and [backend](#) for MIT platform [DormSoup](#) using React, Next.js and Tailwind CSS, reaching 960 users.
- Prompt-engineered ChatGPT to parse emails into JSON. Hosted backend on AWS EC2 and RDS for PostgreSQL.
- Served as PM as well as software engineer, liaising with school admins, Fiverr artists, and other student groups.

Game Development Projects Oct 2021 - May 2022

- Developed [frontend](#) for an *Among Us*-type game using the Phaser game engine, ranked 2/150+ in HackMIT.
- Programmed stealth [game](#) with team using Unity with C#, practicing Scrum methodologies under Agile principles.

Competitive Algorithmic Programming in C++ 2017 - 2021

- Trained in Olympiad graduate-level algorithms and data structures in C++ for 1500+ hours.
- Ranked 6/2575 in USACO US Open 2020, securing a place among the 26 National Finalists across all U.S. high schools.

HONORS

- National Finalist (top 26 among US highschoolers) – USACO (USA Computing Olympiad) 2020.
- Semi-finalist (16/100+) – MIT \$100K Entrepreneurship Competition
- Ranked second (out of 150+ teams) – HackMIT 2021.
- Ranked third (out of 59 teams) – MIT Battlecode 2022.