Alexander L. Li

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EDUCATION

Massachusetts Institute of Technology (MIT)

Exp. May 2028

Candidate for BS in Computer Science, Artificial Intelligence (6-4) & Mathematics (18)

Cambridge, MA

• Relevant Coursework: Machine Learning, Computer Vision, Data Structures & Algorithms, Web Design Lab, C & Assembly, Discrete Math, Linear Algebra, Differential Equations, Probability & Random Variables, Statistics

Experience

Fetch.ai (Agentic AI)

Jun 2025 – Sep 2025

Software Engineer Intern (Part-time / Remote)

Cambridge, UK

- Built 5+ autonomous AI agents prompted by 1,000+ users, facilitating structured multi-agent collaboration
- Integrated RESTful APIs for agent communication & toolchain workflows, enabling end-to-end task automation
- Collaborating with 2 interns on LangChain-based platform for agentic volunteer tracking featured on company site

Air Force Research Laboratory

May 2025 - Aug 2025

AI/ML Research Intern (Full-time / On-site)

Wright-Patterson AFB, OH

- Trained a conditional diffusion model in PyTorch to reverse-engineer image generation parameters from Blender
- Designed a U-Net architecture conditioned on ResNet-encoded images to infer multimodal parameter distributions
- Scaled training efficiency by 400% via multi-GPU distributed data parallel (DDP) & SLURM for batch scheduling
- Containerized for High Performance Computing clusters & Linux-based systems with Apptainer/Singularity

Foundation for Resilient Societies

Jan 2025 - Feb 2025

Data Analyst (Full-time / On-Site)

Cambridge, MA

- Analyzed power grid stability under future energy scenarios using SERVM models, scikit-learn, & SQL
- Researched effects of retiring power plants on U.S. Electric Grid capacity with a focus on ISO New England
- Contributed to a 50-page internal guidebook for onboarding analysts; interfaced with consultants at Astrapé

PROJECTS

Campus Marketplace Platform

Jul 2025

React.js, HTML, Tailwind CSS, Node.js, Express, FastAPI, PostgreSQL, Supabase, Docker, CLIP

- Built a scalable, mobile-first campus marketplace app with secure user auth & real-time item listings
- Implemented AI-powered category recommendations using OpenAI CLIP & FastAPI microservices
- Deployed in Dockerized containers with PostgreSQL & Supabase; architected for future cloud scaling

ChillDeck DJ (MIT Hackathon) - 2nd Place, Best UI Design

Jan 2025

React.js, HTML/CSS, TypeScript, RESTful APIs, Node.js, MongoDB, Figma

- Developed (as a team of 3) an interactive DJ platform allowing users to remix songs by isolating audio stems
- Engineered backend stem processing with Audioshake API & real-time audio waveforms via Wavesurfer.js
- Designed full user flow integrated with MongoDB: login, theming, uploads, & custom track playback

ManusMIDI Digital Instrument

Sep 2024

Python, Flask, HTML, Tailwind CSS, OpenCV

- Developed a browser-based virtual instrument activated by real-time hand tracking movements
- Leveraged OpenCV to map finger positions & gestures to MIDI-compatible musical notes
- Engineered custom algorithm for accurate sharps/flats detection & implemented responsive UI/UX

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL, C++, Java, Bash, HTML/CSS

Frameworks/Technologies: React, Node.js, FastAPI, Flask, MongoDB, PostgreSQL, Docker, Git, Linux, PyTorch, TensorFlow, LangChain, SLURM, Apptainer/Singularity

Awards: USA Computing Olympiad Gold, 5th in Cryptography @ 2024 Science Olympiad Nationals