Fiona Lu

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EDUCATION

Massachusetts Institute of Technology — Cambridge, MA

Bachelor of Science in Computer Science, Bachelor of Science in Mathematics — *Expected May 2026*

- Relevant Coursework: Fundamentals of Programming, Introduction to Algorithms, Intro to Low-Level Programming with C and Assembly, Intro to Computational Thinking and Data Science, Computation Structures, Microeconomics
- Invited to MIT Math Prize for Girls

EXPERIENCE

Intern — May 2024 - Aug. 2024

SoftConstruct — *Yerevan, Armenia*

- Developed project using Python and Apache Kafka framework to collect, process, and store vast amounts of online sportsbook data
- Monkey patched Python standard socket module in order to connect to pusher IP
- Decompressed gzip and lzma compressed data
- Modified application and implemented Kafka framework to stream data with latency as low as 2ms
- Significantly improved efficiency of Swarm API through efficient and scalable system

Undergraduate Researcher — Nov. 2023 – May 2024

MIT — *Cambridge, MA*

- Synthesized 30+ pieces of academic literature to write research paper and conduct literature review
- Ideated novel procedure of utilizing rounds of image-to-line drawing models accessed via Hugging Face
- Worked on AI tool meant to aid comic artists in storyboarding using Python with frontend interface built in Svelte
- Implemented feature to flip through previous image generations in order to improve usability
- Ran numerous study sessions in order to collect data on tool's performance, managed 40 study participants
- AI tool resulted in significantly higher feelings of ease of use, emotional expression, ease of learning, and confidence in study participants

Intern — June 2021 – April 2022

IPMD Inc. — *Berkeley, CA*

- Trained AI to recognize dangerous situations with the aim of preventing casualties
- Data scraped 500+ images from diverse sources for use in training data
- Attended weekly meetings to collaborate and share progress

PROJECTS

Pawse | *Python, Discord API, Git* — June 2022

- Developed Discord bot meant to promote self care and mental health
- Collaborated with teammates to suggest features and provide feedback on ideas
- Integrated Python backend with Discord API, allowed application to handle 10+ custom user commands
- Used asyncio Python library for concurrent programming

Personal Website | *HTML, CSS, Javascript, Git* — July 2022 – Aug 2022

- Utilized HTML and CSS to make a website with 3 pages: Home, About Me, and Portfolio
- Created interactive personality quiz with Javascript
- Added event listeners to DOM objects in order to make application responsive to user interaction

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS
Frameworks: React, Apache Kafka, Svelte
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, Firebase
Libraries: pandas, NumPy, Matplotlib, asyncio