

School Address:  
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## Robin Liu

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1906 Lockwood Avenue  
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### Education

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#### Massachusetts Institute of Technology

Cambridge, MA

*B.S. in Computer Science and Engineering with Minor in Mathematics*

May 2025

Relevant Coursework: Algorithms, Software Development, Computation and Hardware Structures, Probability and Random Variables, Discrete Mathematics, Data Science, Computer Vision, AI, Computer Programming, Machine Learning, Linear Algebra, Calculus, Diff. Eq.  
GPA: 5.0 / 5.0

### Work Experience

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#### App Inventor

Cambridge, MA

*Software Engineer*

December 2021 - Present

- Built new programming tool “Aptly” to automate mobile app development by parsing verbal descriptions into Python code and converting them into working apps on App Inventor’s block-based coding interface.
- Redesigned new client-to-Amazon-Alexa model to be more asynchronous, reducing time spent by users awaiting server response.
- Improved user interface for testing of mobile applications to provide more clarity in coding errors. Used by 14+ million App Inventor users worldwide.

*Student Researcher*

- Wrote research paper on using large language models for mobile application generation based on “Aptly” work, accepted by ACTA Scientific Journal. Found mRMR to be the optimal prompt engineering algorithm for AI app generation.
- Assist in graduate student’s research on simplifying API calls by building apps utilizing popular APIs such as Spotify and ChatGPT.
- Led workshops educating 10+ teachers across the country on how to utilize App Inventor and Aptly in their classrooms to inspire young students to explore computer science.

### Projects

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#### Poker Bot

<https://github.com/robinl21/pokerbot>

- Led team to build Python poker bot for MIT’s 2023 Poker Bot Competition
- Utilized Monte-Carlo simulations to deduce optimal decisions for River of Blood Poker variant
- Implemented exploitative algorithms that collected data on opponent’s decisions to simulate reactive gameplay
- Placed top 20 out of 200 teams and recognized by trading firm DRW Holdings for achieving the highest Sortino ratio

#### Social Media Platform for MIT Hackathon

<https://github.com/robinl21/hackmit2022>

- Created website to help students find friends to study with and create study groups using Flask, JavaScript, MySQL, Google Maps API, HTML, CSS
- Implemented real-time location updating using AJAX calls to help members of a study group easily convene on campus
- Led team of 4 to finish platform by efficiently delegating tasks and creating a concise schedule of deliverables within the 24-hour hackathon time frame.

### Leadership

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#### Code For Good at MIT

Cambridge, MA

*Developer and Consultant*

Fall 2021

- Facilitate web development and data visualization for Depression and Bipolar Support Alliance of Boston to better showcase impact of virtual support groups in local community
- Guided team of five freshmen, inexperienced in software development, through Matplotlib, NumPy, Pandas, and PyTorch to create useful and easy-to-understand graphs that update in real-time.

#### Red Cross Club

San Jose, CA

*President*

Spring 2020 - Spring 2021

- Organized public health service activities that prioritized both community impact and safety during COVID pandemic
- Created digital maps with club members through the Missing Maps project to help first aid responders navigate communities during disasters

### Accomplishments, Honors, and Awards

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#### President’s Volunteer Service Award

Spring 2021

- Awarded for 150+ hours of volunteer work at Red Cross blood donation centers

### Skills

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**Software:** Python, JavaScript, Java, PHP, HTML, CSS, MySQL, Git, PyTorch, C++, Flask, Node.js, Express.js, NumPy, Matplotlib

**Foreign Languages:** Chinese (Fluent), Spanish (Elementary)

**Interests:** Volleyball, Asian Dance Team, Greek Life