ERIC LIU

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EDUCATION

Massachusetts Institute of Technology
Bachelor of Science in Computer Science — Expected graduation May 2025

- Activities: USAPL 75kg Powerlifter, Zeta Beta Tau Fraternity Social Chair, CSOP 2022 & 2023 Qualifier
- Relevant Coursework: Distributed Systems Engineering, Operating Systems Engineering, Computer Security, Software Performance Engineering, Machine Learning, Computer Systems, Computer Vision, Algorithms and Data Structures, Software Construction

EXPERIENCE

Microsoft Corporation — Jun 2024 - Aug 2024
Software Engineering Intern — *Redmond, WA*

- Designed and implemented an internal feature that automates demo account creation and data population, reducing setup time from hours to minutes
- Enhanced user experience and efficiency in sales demos and enabled comprehensive demonstrations of Copilot for Sales' capabilities by dynamically generating personalized demo data using Azure OpenAI
- Utilized React to develop front-end features and bug fixes for the Copilot for Sales application in Outlook and Teams
- Implemented rigorous testing strategies to polish user experience ahead of regular release schedules

Aurora Innovation — May 2023 - Aug 2023
Software Engineering Intern — *Mountain View, CA*

- Reduced map production time by 50% in the autonomous vehicle offline map system by developing and deploying robust metrics in C++ and Python to evaluate accuracy of auto-generated boundary lines
- Automated daily flagging of hundreds of problematic map tiles for manual review by integrating quality check algorithms into existing pipelines
- Validated algorithms by achieving over 99% accuracy on existing auto-generated boundary data
- Designed user interface using TypeScript, HTML, and CSS to display results for operator review

CoreMap — Jun 2022 - Aug 2022
Software Engineering Intern — *Burlington, MA*

- Upgraded and integrated new catheter calibration feature using C++ and QML on the CoreMap Qt application to ensure more accurate catheter readings
- Decreased calibration times by 40% through restructuring data storage and processing in the main application
- Leveraged OpenGL to create visualizations during catheter calibration to make the process more digestible

MIT Teaching Systems Lab — Feb 2022 - May 2022
Undergraduate Research Assistant — *Cambridge, MA*

- Wrote Python programs to expedite data collection and analysis from over 100 Boston public schools
- Conducted surveys to assess the impact of simulations on math pedagogy training for 25 math coaches
- Created data visualizations and wrote research reports that were presented to Gates Foundation sponsors to secure $100,000 in funding

PROJECTS

Star Battle - *TypeScript* — May 2023

- Built a web browser game of Star Battle with a team of 2 other people
- Constructed a regular expression parser to generate a 10x10 game board from string representations
- Implemented logic to handle user interactions and determine the status of the game

Pokerbot - *Python* — Feb 2023

- Collaborated with a team of 3 other people to build a bot to play heads-up "River of Blood" variant of Texas Hold'em Poker with a 60% win rate against similar bots using counterfactual regret minimization training
- Developed Monte-Carlo simulation to calculate probabilities of winning for all 169 different starting hands to abstract them into 10 groups

TECHNICAL SKILLS

Programming Languages	Python, C++, C#, TypeScript, Golang, HTML, CSS, MySQL
Technology/Frameworks	React, Bazel, NumPy, PyTorch, Pytest, Google Test, OpenGL

ADDITIONAL INFORMATION

Awards	QuestBridge Scholar, National Merit Scholar, AP Scholar with Distinction
Languages	English, Chinese (Mandarin), Spanish