

SHENG HUANG

MIT CS Undergrad

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EDUCATION

Massachusetts Institute of Technology - B.S. GPA: 4.7 / 5.0

Spring 2024

- **Completed Coursework:** Computational Architecture; Discrete Math; Data Structures and Algorithms; Fundamentals of Programming; Embedded Systems; Linear Algebra; Design and Analysis of Algorithms; Artificial Intelligence; Software Engineering; Robotics; Computer Systems Engineering;
- **Fall 2024:** Software Studio; Performance Engineering of Software Systems

EXPERIENCE

Software Engineering Intern - Capital One

Richmond, VA

Summer 2023

- Developed an API that dynamically generates custom files for the backend UI, resulting in a dynamic webpage.
- Implemented an additional layer of input validation during the development process, leading to enhanced security
- Established foundational classes for backend, enabling faster code development and deployment by other teammates.

Research Software Developer - MIT EECS

Cambridge, MA

Summer 2022

- Spearheaded the implementation of algorithms to filter n-grams from metadata dataset, creating comprehensible data.
- Developed a robust data filter system by extracting metadata frequency from Google Books JSON API.
- Optimized software performance by implementing caching, resulting in a 50% reduction in execution time.
- Reduced file storage by 75% through a unique file format and ASCII characters, leading to faster data loading.

Software Developer - MIT Material Science

Cambridge, MA

Spring 2022

- Formulated algorithms for cataloging and comparing chemical data for unique compounds.
- Devised visually informative graphs for calculations, enhancing the visualization of reactivity.
- Optimized algorithms by leveraging efficient data structures, resulting in a 20% improvement in runtime efficiency.

Personal Projects

Star Battle (Video Game) - Typescript; HTML; CSS

Spring 2023

- Starbattle based video game that handles concurrent user inputs with typescript server backend communication.

Autonomous Racecar - Python; C++; ROS

Summer 2022

- ROS engineered autonomous race car with advanced computer vision to maintain precise lane positioning.

Real Life Mario Kart - C++; Arduino; Python; SQLite

Spring 2022

- Mario Kart inspired RC car racer with real time communication to Python server and physics simulation using ESP32.

Languages and Tools

Typescript; Java; Python; C++; ROS; HTML; CSS; Assembly; SQLite; REST API; JSON API; Markdown; Latex; Git