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; Multivariable Calculus

• **Fall 2022**: Linear Algebra; Design and Analysis of Algorithms; Artificial Intelligence

EXPERIENCE

MIT EECS - *Researcher / Software Developer*   *Cambridge, MA*   **Summer 2022**

• Designed algorithms to filter and sort n-grams from 10TB of metadata, which created comprehensible data.

• Implemented data filter by extracting metadata frequency from Google Books JSON API.

• Optimized software by implementing caching, leading to 50% reduction in execution time.

• Reduced file storage by 75% by utilizing unique file format and ASCII characters which led to faster load.

Ek Kadam Aur - *Data Science Intern*   *Cambridge, MA*   **Summer 2022**

• Established a system on collecting and interpreting data for disabled students in a classroom setting.

• Utilized data structures and object oriented programming which lead to an overall 20% execution speed increase.

• Engineered and designed GUI interface for easier access and interpretation of student data.

MIT Material Science - *Research Software Developer*   *Cambridge, MA*   **Spring 2022**

• Established algorithms for cataloging and comparing chemical data for unique compounds.

• Designed graphs for calculations, which lead to a better informative visual about the reactivity.

• Optimized algorithms by utilizing different data structures, leading to increased runtime efficiency by 20%.

Personal Projects

Personal Weatherman - *C++; Arduino; JSON API; Rest API*   **Summer 2022**

• IOT device that scraps and displays data from weather API.

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.

Restaurant POS System - *Python; SQLite*   **Summer 2021**

• Software that digitizes and displays menus and stores previous customer information.

Languages and Tools

Python; C++; Java; HTML; CSS; Assembly; Minispec; SQLite

Visual Studio; Vim; REST API; JSON API; Jupyter Notebook; Markdown; Latex