Cambridge, MA 02139

Sheng Huang

+1 (315) 704-9115
shengh@mit.edu

Education

Massachusetts Institute of Tech. **Cambridge, MA** **Expect Spring 2024**

- **B.S.E.** in Computer Science and Electrical Engineering. **GPA: 4.7 / 5.0**.
- **Completed Coursework**: Computational Structures; Discrete Math for CS; Algorithms; Fundamentals of Programming; Embedded Systems; Multi-variable Calculus;
- **Fall 2022**: Linear Algebra; Design and Analysis of Algorithms; Machine Learning;

Software Engineering Experience

MIT EECS Dept. **Undergraduate Researcher** **Summer 2022**

- Designed algorithms to filter and sort n-grams from 10TB of metadata, creating more comprehensible data.
- Implemented online API integration by creating script which extracts metadata frequency from Google Books which filters out any unnecessary information.
- Optimized software by implementing caching, leading to 50% reduction in running time.
- Reduced file storage by 75% by utilizing unique file format and ASCII characters which led to faster load.
- Designed GUI interface for friendly and easier use.

Ek Kadam Aur (non-profit) **Data Science Intern** **Summer 2022**

- Devised system on collecting and interpreting data for disabled students in a classroom setting, which has the potential of leading to a newer style of teaching methods for students with eye disability.
- Designed data structures which lead to an overall 20% efficiency increase.
- Engineered and designed GUI interface for easier access and interpretation of student data.
- Presented software and report to the Board Of Directors.

MIT Material Science Dept. **Research Software Developer** **Spring 2021**

- Established algorithms for processing chemical data for unique compounds which optimized software speed.
- Designed graphs for calculations, which lead to a better informative visual about the reactivity.
- Optimized algorithms by utilizing different data structures, leading increased runtime efficiency by 20%.
- Uploaded code along with graduate student research for the use by other colleges / research offices.

Personal Projects

- **Real Life Mario Kart** (2022). Inspired by Mario Kart on the Switch, designed and created a real life version of Mario Kart by software, hardware, and server side code. **C++; Arduino; Python; SQL-Lite; ESP32; API;**

- **Personal Weather Man** (2022). Created a hardware that scrapes data from weather API for accurate weather information by means of software and hardware. **C++; Arduino; API; ESP32; JSON;**

- **Performance Data Analyzer** (2022). Designed and engineered a data analyzer / cleaner. Software correctly identifies relevant / important information and categorizes data. **Python; CSV;**

- **Restaurant POS System** (2021). Digitizes restaurant menu which created a fast and efficient working environment for both customers and managers. **Python; SQL-Lite;**

Languages and Tools

- **Python** (expert); **C++** (moderate); **Java** (prior experience); **HTML** (fluent); **CSS** (prior experience); **Assembly** (prior experienced); **Minispec** (prior experienced); **SQL-Lite** (prior experience);
- Visual Studio; Vim; Nano; JSON; Database; Online API;