Baldwinsville, NY 13027
Online Portfolio

Sheng Huang

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Education

Cambridge, MA	Massachusetts Institute of Tech.	Spring 2024

- **B.S.E.** in Computer Science and Electrical Engineering. **GPA: 4.7 / 5.0**.
- **Completed Coursework**: Computational Structures; 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

Undergraduate Researcher	MIT EECS	Summer 2022

- Designed and analyzed algorithms to create and sort n-grams from 10TB of online metadata.
- Implemented online API integration by creating tool which extracts important metadata from APIs.
- Optimized software by implementing file 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.
- Engineered and designed GUI interface for easier use of algorithms.

Data Science Intern	Ek Kadam Aur	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 software for easier access and interpretation of student data.
- Reduced file storage by utilizing different file format, leading to faster file loading / writing speeds.
- Presented software and findings to the Board Of Directors.

Research Software Developer	MIT Material Science	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 speed of algorithms by implementing separate data structures, which increased speed by 20%.
- Published code along with graduate student research for the use by other colleges / research offices.

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;