Minsi Hu

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Education

University of Maryland, College Park (UMD) **GPA: 4.00 / 4.00**
University Honors (UH) Program **Expected May 2025**

- B.S. Computer Science (Machine Learning Track)
- B.S. Mathematics (Applied Math Track)

Relevant Coursework and Grade

- *Courses Completed*: Calculus III (A+) | Linear Algebra (A+) | Differential Equations (A+) | Discrete Structures (A+) | Object Oriented Programming II (A+) | Computer Systems (A+) | Web Application Development with JavaScript (A)
- *Courses In Progress*: Organization of Programming Languages | Algorithms | Data Science

Work Experience

Incoming Teaching Assistant | *UMD Department of Computer Science* **August 2023 – December 2023**

- Incoming Teaching Assistant for the CMSC216: Introduction to Computer Systems fall semester course, committed to supporting and promoting the academic success of undergraduate students.

WHK Student Intern | *National Cancer Institute (NCI)*, Dr. Kylie Walters **June 2021 – May 2022**

- Conducted research on the USP14 inhibitor under mentor Dr. Kylie Walters and her team, and used PyMOL to generate protein models of enzymes in the ubiquitin-proteasome pathway.

Python Instructor | *Frederick Chinese School* **August 2021 – June 2022**

- Facilitated a weekly Python programming course tailored for middle school students, providing comprehensive instruction and guidance.

Personal Projects

Digit Recognizer | C++ **May 2023 – Present**

- Developed a C++ implementation of a convolutional neural network from scratch, utilizing deep learning techniques and linear algebra to recognize handwritten digits given from the MNIST database.

Sorting Simulator | Java | Bitcamp 2023 **April 2023 – May 2023**

- Developed a sorting algorithm visualizer using Java Swing to showcase real-time updates to arrays as various sorting algorithms like bubble sort, insertion sort, merge sort, and quick sort are applied.

Mims' Rucoy Calculator | Python & Java **September 2020 – Present**

- Led a team that develops and hosts an intelligent utility Discord bot using Java Discord API, deployed in over 4500 servers, assisting thousands of users daily in optimizing their gameplay.

Rucoy Vision Bot | Python **September 2020 – December 2020**

- Developed an image processing and recognition application using OpenCV and PyAutoGUI, which captures screen images, identifies targets, and automates actions to improve a user's experience in a multiplayer game.

Skills

Languages | Java, Javascript, Typescript, Python, C, C++, C#
Other | MATLAB, React, Node, Express, MongoDB, HTML, CSS, Unity, LaTeX