

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+)
- ❖ *Courses In Progress*: Web Application Development with JavaScript | Organization of Programming Languages | Algorithms

Relevant AP Courses with a Score of 5

- ❖ Computer Science A, Computer Science Principles, Calculus BC, Macroeconomics, Microeconomics, Physics C: Electricity and Magnetism, Physics C: Mechanics, Biology, Chemistry

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 JS, HTML, CSS, Unity, Emacs, Eclipse, IntelliJ IDEA, CLion, VSCode, LaTeX