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
- *Courses Completed*: Calculus III | Linear Algebra | Differential Equations | Discrete Structures | Object Oriented Programming | Computer Systems | Web Development | Programming Languages | Algorithms | Data Science
- *Courses In Progress*: Advanced Data Structures | Advanced Calculus | Theory and Methods of Statistics

Work Experience

Teaching Assistant | *University of Maryland* **August 2023 – Present**
- Teaching Assistant for the CMSC216: Introduction to **Computer Systems** and STAT410: Introduction to **Probability Theory** courses.

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 – May 2022**
- Facilitated a weekly **Python** course for middle and high 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 from the MNIST database.

Mims' Rucoy Calculator | **Python & Java** **September 2020 – October 2023**
- Launched an intelligent utility Discord bot using **Java Discord API**, deployed in over 4800 servers, assisting thousands of users daily in optimizing their gameplay.

Rucoy Vision Bot | **Python** **June 2023 – July 2023**
- Implemented an image 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.

Sorting Simulator | **Java** | **Bitcamp 2023** **April 2023 – May 2023**
- Designed a sorting algorithm visualizer using **Java Swing** to showcase real-time updates to arrays as 10 different sorting algorithms are applied.

Skills

Languages | C++, C, Java, Python, SQL, Javascript, Typescript, C#, OCaml, Rust
Other | HTML, CSS, React, MySQL, MATLAB, MongoDB, Pandas, Node, Unity, Git, LaTeX