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*: Deep Learning | Advanced Data Structures | Advanced Calculus | Theory and Methods of Statistics | Independent Undergraduate Research

Work Experience

Teaching Assistant | *University of Maryland*   **August 2023 – Present**
- ❖ Teaching Assistant for the CMSC132: **Object-Oriented** Programming II, CMSC216: Introduction to **Computer Systems,** and STAT410: Introduction to **Probability Theory** courses.

Undergraduate Research Assistant | *University of Maryland*, *NMCL*   **December 2023 – Present**
- ❖ Implemented software to assess the efficacy of different functional connectivity methods for **electroencephalography classification**, utilizing various **feature extraction** methods, **machine learning models** (SVM, RF, MLPs), **neural networks** (convolutional, graph, transformer), etc.

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.

Personal Projects

Digit Recognizer | **C++**   **May 2023 – August 2023**
- ❖ 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, Python, Java, Rust, OCaml, SQL, Javascript, Typescript, C#
Other | HTML, CSS, React, MySQL, MATLAB, MongoDB, Pandas, Node, Unity, Git, LaTeX