

# Mya Massey

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## EDUCATION

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**University of Michigan**, Ann Arbor, MI

*Sept. 2021 - May 2025*

**B.S.E.** Computer Science Engineering, **Minors** in Physics and Astronomy and Astrophysics

**GPA:** 3.966, **Honors and Awards:** Engineering Dean's List (8 terms), James B. Angell Scholar (6 terms)

**Coursework:** Data Structures and Algorithms, Web Systems, Computer Vision, Operating Systems, Software Engineering, Computer Game Design and Development

## WORK EXPERIENCE

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**University of Michigan Astronomy**, Ann Arbor, MI

*Aug - Dec. 2024*

*Grader*

- Graded homework assignments for 60 students enrolled in an introductory astronomy course.
- Communicated and reinforced astronomy concepts to students via office hours and class forums.

**Moldwin Magnetometer Laboratory**, Ann Arbor, MI

*May - Dec. 2023, May - Aug. 2024*

*Undergraduate Research Intern*

- Helped develop a low-cost space weather sensor package for research and residential applications.
- Used machine learning to determine with 90% accuracy the times of day pc3 waves are present in 24-hr magnetic field data. Generated log power spectra for input to a convolutional neural network by applying a short-time fourier transform to filtered signals and hand-labeled the data.
- Increased time efficiency of a file format converter by a factor of 2.5 and organized Python package in preparation to distribute with PyPI.
- Designed and implemented a React web interface to make magnetic field sensor data easily accessible and visualizable, utilizing various platforms/APIs such as Google Cloud Platform, Material UI, and Dropbox.

**Birchwood Farms Golf and Country Club**, Harbor Springs, MI

*May - Aug. 2022*

*Housekeeper*

- Maintained inventory and completed cleaning/sanitization tasks on time.
- Trained employees for housekeeping services and communicated effectively with clients and staff.

## COMPUTER SKILLS

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**Languages:** C/C++, C#, Unity, Python, JavaScript, React, HTML, CSS. **Platforms:** Mac OS, Microsoft Windows

## SELECTED PROJECTS

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**Video Game**

*Jan. - Apr. 2025*

- Developed a video game in Unity and C# with emphasis on player guidance, interesting decisions, novelty, technical soundness, and aesthetics.
- Implemented player movement code and state machine logic, using physics and linear algebra knowledge.
- Closely cooperated with other designers and artists to design levels.
- Elicited feedback via playtests and informal interviews to inform iterative agile development process.

**Open Source Contribution**

*Mar. - Apr. 2025*

- Fixed an issue in the open-source Astropy library and performed QA via regression and unit testing.
- Met CI, coverage, testing, and code review standards: PR was accepted and merged.

**Sign Language Transcriber**

*Mar. - Apr. 2024*

- Applied computer vision fundamentals to translate videos of fingerspelled words.
- Trained a CNN model on images of the 26 signed letters with 83% validation accuracy then applied the model frame-by-frame to videos.

**OS Memory Manager and Thread Library**

*Feb. - Mar. 2024*

- Designed a memory pager that provides address space abstraction by reading and writing physical memory, files, swap space, and page tables.
- Implemented a user-level thread library that provides threads, mutexes, and condition variables.