Mya Massey

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EDUCATION

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, Modern Physics
Computer Skills: C/C++, C#, Unity, Python, JavaScript, React, HTML, CSS. Mac OS, Windows.

WORK EXPERIENCE

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.

SELECTED PROJECTS

Video Game - *Lolie the Roly-Poly*   *Jan. - Apr. 2025*
- Developed a video game in Unity and C# with emphasis on player guidance, interesting decisions, novelty, technical soundness, and aesthetics. Marketed and presented game at showcase.
- Implemented player movement code and state machine logic, using physics and linear algebra knowledge.
- Closely cooperated with other designers and artists to create levels; used Jira to coordinate progress.
- Elicited feedback via playtests and informal interviews to inform iterative agile development process.

Open Source Contribution, Astropy   *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.