Ben Morris

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Education

Carnegie Mellon University — Aug 2025 - May 2027
Master's in Entertainment Technology

Olin College of Engineering — Aug 2020 - May 2024
B.S. in Engineering with a Concentration in Computing | 3.80 GPA

Skills

Languages: Python, Java, C#, C, C++, Arduino, MATLAB, OCaml, Haskell, Swift, Javascript, SQL, SystemVerilog
Tools: Git/GitHub, Perforce, ROS2, Unity, Ubuntu, Computer Vision, LiDAR, ARKit, Azure ML, Flask, Django

Experience

Tutor Intelligence — Dec 2024 - Jul 2025
Robotics Software Engineer

- Designed and implemented new features to increase robustness in automatic palletizing applications
- Spearheaded effort to reduce mechanical failures in sensors, implementing automatic issue resolution and early warning signs for failure, causing mechanical sensor failures to drop more than 80%
- Revamped manipulation technique, increasing our grip by an average of 1.4x across products

Senior Capstone in Engineering — Aug 2023 - May 2024
Software Engineer

- Worked with the Volpe Center and IIHS to create a crowd-sourced blindzone calculator
- Wrote an algorithm to calculate blindzone boundary given a LiDAR-generated vehicle mesh
- Increased accuracy by over 85%, and delivered a more intuitive & production-ready site

OCCAM Lab — May 2021 - Dec 2021
Software Researcher

- Integrated LiDAR, April Tags, and V/IO in Swift & Python to solve SLAM in buildings with G2O
- Created and evaluated metrics to analyze map quality with a lack of ground truth data
- Moved project from proof-of-concept to functional prototype with 75% increase in accuracy

Passion Projects

Franklin W. Olin Players: Served as president and acted, stage managed, and directed across six productions
Neato Tag: Group project to make vacuum robots play tag using LiDAR & computer vision in ROS2
CV Pong: Pong where the paddle is controlled using computer vision by moving your hand up and down
Advent of Code: My solutions to the Advent of Code coding challenges from 2019 and on
Script Creator: App to help build and format scripts for the Franklin W. Olin Players
Altitude: An immsersive game in Unity meant to simulate the feel of skydiving with a full-body controller