

Max Mossberg

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Education

University of Michigan

2023

BSE in Computer Science

Ann Arbor, MI

- **Relevant Coursework:** Computer Security, Web Systems, Databases, User Interface, Game Development

Experience

JumpCutter

May – Aug 2020

Software Engineering Intern

Remote

- Developed the Twitch Vodinator tool to automatically apply video edits based on the most interesting moments
- Wrote back-end python scripts to download live-stream data using the Twitch API, identify timestamps based on spikes in chat engagement, and apply video cuts with FFmpeg

Projects

Sketris | WebRTC, HTML/CSS, Javascript

2023

- Modern tetris training web app built from scratch boasting position imports/exports, screenshot analysis, and real-time collaboration among many users
- Met with community leaders to identify voids in modern tetris training ecosystem
- 150+ users and praise from community

EECS 481 - Software Engineering | C, Java, Python

2022

- Class focused on modern software engineering coding and testing practices.
- Created test suites for large software suites libpng and JFreeChart and analyzed the branch and line coverage of their source code with utilities gcov and cobertura
- Assessed robustness of test suites for the python library fuzzywuzzy through mutation testing of the program's abstract syntax tree (AST)

Skribblr | Python, OpenCV, wxPython

2022

- Extracts contours from images and turns them into stylized drawings natively inside drawing applications.

Snowbound | Unity, C#

2021

- Worked in team of 4 students to prototype ideas, implement play-tester feedback, and deliver a complete game
- Individually responsible for level design, character physics, and music composition
- Communicated with external artists for additional art and sound design support
- Voted overall best of joint Umich + EMU Game showcase

MRover Project Team - Computer Vision Subteam | C

2020

- Implemented AprilTag detection to orient rover when autonomously traversing gates

Handy Robotics | Python, OpenCV, Arduino

2018

- Built a robotic hand that interactively plays Rock, Paper, Scissors, using 3D printing and computer vision

Technical Skills

Languages: C++/C, C#, Python, HTML/CSS, Javascript, Golang, \LaTeX , SQL, R, Matlab, G-code

Technologies: Bash, Git, Unity, OpenCV, MongoDB, React, Svelte, WebRTC, FFmpeg

OS: Windows, Linux

Leadership

- Captained 2018 State Champion FTC Robotics Team [HAX robotics](#) and ran tournaments as Chess Club leader.

Personal

- Classically trained pianist who also enjoys music production (see Snowbound)
- 3D Printing Hobbyist, enjoy modeling my own solutions/tools in Fusion360 and sharing my CAD designs online.
- Achieved top 100 US ranking in [modern Tetris](#) while developing and training with Sketris
- Featured in [Loomis Chaffee magazine](#) for high school accomplishments.