

BRENDAN HARRINGTON

DEVELOPER

CONTACT

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EDUCATION

Bachelor of Science - Computer Science

Montana State University

Dec 2023 • 3.32 GPA

Relevant Coursework

- Advanced Software Engineering
- Computer Security
- Networks
- Database Systems
- Compilers
- Computer Systems
- Data Mining
- Computer Vision

SKILLS

- Communication
- Leadership
- Teamwork
- Critical Thinking
- Creativity
- Adaptability
- Problem Solving
- Linux, Windows, Mac
- Git, Github
- Docker
- Robot Operating System (ROS, ROS2)
- Unity Game Engine
- Mixed Reality Toolkit 3
- Microsoft Office Suite
- Adobe Suite
- C, C#
- Python

PERSONAL PROJECTS

- Personal Website
- [Robotics Club Website](#)
- Autonomous Underwater Vehicle
- [Photography Portfolio Website](#)
- Virtual Reality Interactivity Game
- Catscript JVM Bytecode Compiler
- Assembly Emulator (C)
- Personal Plex Media Server

WORK EXPERIENCE

Mixed Reality Developer

Human Interaction Lab - Montana State University

Jan 2024-Present

- Helped design extended (virtual/augmented) reality (XR) applications to assist medical school students in evaluating mental health issues
- Developed Interactive simulations that realistically portray counseling scenarios to train medical students to understand signs of mental illness and substance abuse
- Worked with Graduate students to help shape studies on the effectiveness of XR training to help students learn how to treat patients

Undergraduate Student Researcher

Human Interaction Lab - Montana State University

July 2023 - Jan 2024

- Responsible for developing a XR application that allowed for semi-autonomous control of an artesian robotic arm for more efficient task completion
- Developed a computer vision system to control a cartesian robotic arm to complete tasks autonomously
- Examined how the user experience (UX) of XR devices can affect the efficiency of semi-autonomous task completion
- Helped shape a study to show the effects of how XR devices could increase the efficiency of machine control

Undergraduate Student Researcher (Computer Vision)

Robocats - Montana State University

Oct 2022 - July 2024

- Responsible for developing algorithms and artificial intelligence (AI) models to control an autonomous underwater vehicle (AUV)
- Researched new methods and processes to increase the efficiency of computer vision software and improve integration within existing software systems
- Used supervised training methods to train convolutional neural networks and deploy custom computer vision models for underwater obstacle avoidance
- Developed machine learning workflows to facilitate data collection, dataset production, and training of machine learning models
- Developed computer vision algorithms to assist in autonomous tracking of environmental obstacles/targets to aid in navigation

Software Lead (Volunteer Position)

Robocats - Montana State University

April 2023 - May 2024

- Managed a team in the training, development, and deployment of computer vision models within distributed systems
- Created documentation for helping new student developers understand how to use and develop computer vision software on an AUV
- Began the process of switching to a new open-source, robot operating system and computer vision system for future iterations of the AUV

Teaching Assistant (Web Design)

Montana State University

Aug 2022 - Dec 2022

- Oversaw a web design technical lab in which students learned the basics of HTML and CSS, as well as many key concepts of front-end web development
- Assisted students in troubleshooting challenges related to web design tools and coding environments, and helped students in debugging code
- Held office hours to accommodate students' questions and offer assistance to students in completing their course projects and assignments