

Professional Experience

Artificial Intelligence Researcher

2018 - Present

Evolutionary Computing Systems Laboratory - University of Nevada, Reno

- Developer on a VR, networked, multiplayer, training simulation for naval officers in C# (Unity)
- Automated and documented a 3D model conversion process for naval ships, aircraft, and harbors

Teaching Fellow

2018 - Present

CS 135 (Introductory computer science class) - University of Nevada, Reno

- Provided C programming tutoring for over 300 students per semester
- Helped lead two lab sections per week

Embedded Software Engineer Intern

Summer 2017, 2018, 2019

Lime Rock, LLC - Medford, Oregon

- Designed a real-time dead reckoning system for a four-wheel holonomic chassis in C
- Began development on a point-to-point real time graphical web user interface for a GPS controller
- Implemented a parser for the NMEA 0183 communication standard
- Wrote memory management (MMU) and I/O (ADC, Serial, DIO, LCD, I2C) drivers for an embedded processor in C

FIRST Robotics Mentor

2013 - Present

- FIRST Robotics is an international program that inspires high school students to learn engineering and use their skills to design and build a robot to compete in new sports-like games each year
- Team Captain in 2017 and have been a software and CAD mentor for the students since then

Technical Skills

Comfortable with: C/C++, C#, Unity, Git, Embedded software, NI LabVIEW, LaTeX

Experience in: Python, JavaScript, HTML/CSS, Autodesk Inventor/SolidWorks

Projects

Space Age - Fall 2019

- Space themed local co-op game where two players try to manage three subsystems (gunner, pilot, repair) to survive as long as possible. Decision-making and teamwork are key. Written in C# using Unity

Planet Ball - Fall 2018

- Fast-paced competitive arcade game where players grapple to pivots throughout the map then time their release to send the big ball flying into the opponent's goal. Written in Unity using C#

Evolutionary Solver - Spring 2018 - Summer 2018

- A genetic algorithm uses a population of neural networks to learn to play games. Written from scratch in C++. Currently Tic-tac-toe and Ultimate tic-tac-toe are implemented as games

Leviathan - Fall 2018 - Spring 2019

- Virtual reality simulation that teaches naval officers to determine ship types and angles using ship lighting. Implements a quiz mode which tests knowledge in a variety of scenarios. Written in Unity using C#

Education

University of Nevada, Reno

Expected graduation: 2021

- Bachelor of Science in Computer Science and Engineering
- Honors Program
- GPA 3.83
- Minor in Digital Interactive Games
- Minor in Math
- Robotics and Electronics Club - Vice President