

Ethan Willis

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www.ethanwillis.info

Education

University of Florida - Herbert Wertheim College of Engineering

August 2021 – December 2025

Bachelor of Science in Computer Science

Gainesville, Florida

Minor in Digital Arts & Sciences, Certificate in Artificial Intelligence Fundamentals & Applications

GPA: 3.88/4.00

Technical Skills

Languages: C++, Python, C#, Java, C, JavaScript, Dart, PHP

Tools & Platforms: Linux, Git, Arduino, Raspberry Pi, MySQL

Frameworks & Engines: Unity, Unreal, React, Flutter

Experience

Technical Intern - Software

May 2025 – August 2025

Universal Creative - Advanced Technology Interactives/R&D

Orlando, Florida

- Engineered a Flask application with a Bootstrap frontend to unify communication between multiple machine learning models and show control systems; leveraging HTTP endpoints and UDP messaging for robust, real-time performance.
- Implemented SocketIO heartbeat mechanism to monitor server connections and update the frontend interface in real time, improving system reliability and user awareness.
- Synchronized OptiTrack motion data with Unreal Engine, enabling real-time, localized positional + rotational data.
- Developed an accessible interactive experience for mobile devices by integrating Flutter and 8th Wall AR game engine.
- Researched, documented, and tested several local style-transfer models and presented findings to stakeholders to guide future creative technology applications.

Associate Software Engineer

August 2024 – December 2024

CRB Workforce

Orlando, Florida

- Collaborated with the software team of the Advanced Technology Interactives/R&D department of Universal Creative.
- Programmed, documented, and tested interactive experience in Unity, utilizing serial communication and hand tracking, while also maintaining modular and efficient performance using Unity Atoms and a finite state machine architecture.
- Improved efficiency and user experience of themed interactive input modules currently under research and development by integrating and programming new hardware components with Raspberry Pi.

Technical Intern - Software

May 2024 – August 2024

Universal Creative - Advanced Technology Interactives/R&D

Orlando, Florida

- Developed interactive experience with Unity, utilizing and integrating hand and skeletal tracking, mid-air haptics SDKs with Arduino-controlled motors and custom modeled mechanics.
- Enhanced efficiency of themed input modules using Python API for UHF RFID readers on Raspberry Pi controllers.
- Integrated and tested UDP networking solutions to wirelessly send input data to Unity builds, controlling and regulating interactive sensory effects with high efficiency and modularity.
- Collaborated with large interdisciplinary teams to test and improve large-scale interactives for upcoming projects.

Leadership / Extracurricular

Design Team Captain

August 2024 – May 2025

Motion Simulator Design Team – Gator Theme Park Engineering & Design

University of Florida

- Managed and executed development for a graphical user interface using PySide/Qt and for an Arduino to autonomize linear actuators to allow pitch and roll functionality for a motion simulator chair with communication between the two.
- Conducted and led weekly meetings, workshops, and build days to fully manufacture, assemble, and test a full-scale, fully controllable motion simulator with two degrees of freedom.
- Facilitated communication between hardware and software teams to ensure timely project delivery.

SFX Head

August 2022 – August 2024

Haunted House Design Team – Gator Theme Park Engineering & Design

University of Florida

- Programmed Arduino microcontrollers and custom circuit boards to autonomize over 10 visual and sensory effects.
- Aided in management, construction, and planning for a 1200 square foot haunted house, operating Spring 2023, Fall 2023, and Spring 2024, for over 1,000 guests and generating \$10,000 total over three semesters.