

Eric Nortmann

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EDUCATION

University of Central Florida | GPA: 3.91

Orlando, FL

B.S. in Computer Science, Minor in Digital Media

June 2024 – May 2028

- Clubs: EXCEL, Esports at UCF (Team Manager), Graphic Programming Knights (Outreach Lead)

EXPERIENCE

Limbitless Solutions

Orlando, FL

Assistant Scholar — Games Team

May 2025 – Present

- Developed interactive training simulations in **Unreal Engine 5** and **C++**, designed to train pediatric patients on electromyography (EMG) signal control for bionic limbs.
- Designed and implemented a scalable, Object-Oriented architecture in **C++**, optimizing modular components to power a gamified, interactive training simulation.
- Mapped EMG inputs directly to in-game actions with **95%** accuracy, enabling seamless bionic hardware integration as a game controller for enhanced patient training.

The DRACO Lab

Orlando, FL

Undergraduate Researcher

January 2026 – Present

- Conducting research on resilient algorithms for decentralized autonomous drone swarms as part of the **SHARKS project (Secure, Heterogeneous, Autonomous, Rotational Knowledge for Swarms)**.
- Designing multi-agent coordination systems that rely on local sensing and simple agent-to-agent communication, removing the need for a central controller.
- Programmed a Reinforcement Learning (RL) simulation in **Python** using Gymnasium, implementing a tabular Q-learning algorithm with epsilon-greedy exploration to train autonomous agents in optimal pathfinding.

UCF Institute for Simulation and Training

Remote

XR Software Engineer Intern

December 2025 – January 2026

- Created V-RADS (Virtual Radiation Awareness & Detection System) for METIL, in partnership with the **Department of Energy (DOE)**, **ORETTC (Oak Ridge Enhanced Technology and Training Center)**, and **Y-12 National Security Complex**.
- Developed a modular radiation detection system in **Unity**, utilizing the Inverse Square Law to simulate realistic radiation spread and dosage.
- Built custom XR Interaction Toolkit mechanics, including a virtual Geiger counter and locomotion systems optimized for user comfort.

PROJECTS

Dance Fighter | Unity, C#, Github

- Developed a **C#-based** interactive fighting game over a 12-week development cycle, placing **3rd out of 15 projects** and demonstrating the final application to an audience of **100+** attendees.
- Engineered a robust state management system to dynamically process runtime variables and resolve real-time execution conditions.
- Utilized **C#** coroutines for asynchronous task management, ensuring seamless system state transitions without blocking the main execution thread.

Campfire Cryptid | Unity, C#

- Rapidly prototyped a survival game under a strict 48-hour deadline, delivering a complete software package that won **1st out of 11 projects**.
- Programmed automated object lifecycle and spatial collision systems, dynamically calculating world-space bounds and implementing memory cleanup to optimize runtime performance.

SKILLS

Programming Languages: Python, C, C++, C#, Java, JavaScript, HTML, CSS

Tools & Engines: Unity, Unreal Engine, Linux, Git, Github

AWARDS & CERTIFICATIONS

Certifications: Adobe Photoshop, Unity Essentials Pathway, Unity Junior Programmer, Akamai Network Engineering, Akamai Customer Consulting and Support

Awards: 3rd/15 - Knight Hacks Project Launch 2025, 1st/11 - GameDevKnights Summer 2025 Game Jam, UCF President's Honor Roll Recipient