Jackson Westbrook

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EDUCATION

North Carolina State University | Raleigh, NC

Bachelor of Science in Computer Science | GPA: 3.71 May 2025

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Software Engineering, Artificial Intelligence, Natural Language Processing

Awards & Honors: Dean's List (Fall 2022, Spring 2023, Fall 2023, Fall 2024)

RELEVANT EXPERIENCE

NCSU School of Engineering | Raleigh, NC February 2025 - Present

Research Assistant

- **AI-based simulation** of people evacuating from a hurricane that uses personal relationships and traits.
- Full stack development using **C#** for the backend and the **Unity game engine** for the front end
- Designed agents with simulated relationships and behaviors, rendered through Unity for interactive simulations.

TECHNICAL PROJECTS

Trainyard Debugger | Katabasis August 2024 – December 2024

- Worked in a group of five with weekly sponsor meetings to develop an educational code block puzzle game in **Unity.**
- Led development and managed the codebase as both **DevOps engineer** and lead programmer, ensuring smooth progress and minimal conflicts.

Rigged: Gerrymandering Simulator | Personal Project August 2024 - Present

- Solo game project being developed in the **Godot engine**; publishing on steam upon completion.
- Create district lines on a tiled hexagon map with the goal of rigging elections in a perfectly legal way.

2D Game Engine: C++ | Class Project August 2023 – December 2023

- Created a 2D game engine using **C++** as a semester long project for a game engines course at NCSU.
- Allows the creation of 2D games using **SFML libraries** for displaying visuals.
- Includes a time system, event manager, **JavaScript** scripting support, and **0mq-based multiplayer networking**.

Crimson Cones | Class Project October 2023 – December 2023

- Created a 3D boss battle using **Unreal Engine 5** with a four-person team.
- Built enemy AI and core mechanics using both **Blueprints and C++**.

SKILLS & CERTIFICATIONS

- **Programming Languages:** C++, C#, Java, Python, JavaScript, HTML
- **Tools and Technologies:** Git, Unity, Unreal 5, Godot
- **General Skills:** Project management, Communication, Leadership
- **Certifications:** Microsoft Word and Excel Certification