Lucia Hughes | Network & Systems Programmer

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Education

Champlain College, Burlington, VT   Graduating 2024

Bachelor of Science in Game Programming

Skills

| C# | | C++ | | Python | | Java | | Bash | | HTML, CSS, JavaScript | | Git | | SVN | | 3D Math | | Agile | | Scrum |

| Unity | | Unreal Engine 5 | | Jira, Confluence, Bitbucket | | OpenGL API | | Unity Netcode | | Steamworks API |

Projects

Molementum   September 2023 – Present

Lead, Network, & Systems Programmer   Team Size: 18

An online action party game developed in Unity where players compete to win a variety of objectives while continuously upgrading their character with new abilities and ways to interact with the game world.

- Developed multiplayer **networking systems using Unity Netcode** for a **host-client lobby structure**, and **integrated Steam's online services** using the Facepunch.Steamworks library.
- Engineered **a robust modular game architecture in C#** enabling the team to implement several objectives and player abilities.
- **Led programming team** and planned weekly sprints in collaboration with producers and other leads.
- Implemented **real-time gameplay synchronization** mechanisms to ensure a consistent multiplayer experience.
- Followed **agile and Scrum practices on a daily basis** throughout the entirety of development.

Agripocalypse   January 2023 – April 2023

Tools, Systems, & Gameplay Programmer   Team Size: 11

An exploration-based stealth game focused on surviving and crafting weapons, developed in Unity.

- Created **in-depth developer tools** for customizing enemy behavior, adding new items and crafting recipes, and building levels.
- Engineered **finite state machines in C#** for the player and enemies to allow for complex movement.
- Followed **agile and scrum practices on a daily basis** throughout development.

Work Experience

Emergent Media Center at Champlain College, Burlington, VT   June 2022 – Dec 2022

Network Programmer   Team Size: 4

- **Implemented a networking system** utilizing **Unity Netcode** to send large amounts of data between: PCs, Androids, iOS devices, and Oculus Quest 2.
- Programmed in **C# using Unity** to create a data visualization creation and presentation tool with a focus on AR and VR.
- Used **Google ARCore** to create immersive data visualization experiences.

SMART Space at Champlain College, Burlington, VT   Jan – June 2022 / Sept - Dec 2022

Game Programming Tutor

- Assisted students with creating games with **Unity and Unreal**.
- Guided students in what approach to take regarding programming implementation and structure.