Brandon Withington

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Skills

Languages: C#, C, C++, Lua, Python, SQL, JavaScript, HTML, CSS, Java, GLSL, HLSL
Technologies & Software: Unity, Unreal, Git, Gitea, VS Code, Visual Studio, OpenGL, Blender, PyCharm, IntelliJ

Experience

XR Software Engineer II **Oct. 2025 - Present**

Human Mode

- Developed scalable XR systems, including input handling, IK, locomotion, UI, multiplayer experiences, networking, and physics driven interactions across multiple headsets (Quest & PCVR), Android, and desktop PC systems
- Led a team initiative to analyze user feedback on templates and UI flows, driving actionable improvements that resulted in a 14% increase in uploaded worlds
- Resolved critical issues across content creation tools, in-game services, and platform systems, improving overall platform reliability. Contributing to a 17% increase in returning first-time guests
- Engineered Massive Loop's first widespread controller support system by directly interfacing with physical device drivers and converting raw hardware inputs into readable formats via Open Sound Control (OSC).

XR Software Engineer **Mar. 2022 – Oct. 2025**

Human Mode

- Designed and implemented core game mechanics and led the development of 60+ cross-compatible VR, and PC game world environments for a Unity-based Social VR platform, driving 38% of total user visits across the platform
- Optimized platform-wide rendering and performance, resolving latency-sensitive bottlenecks using GPU and memory profiling tools to maintain strict VR framerate targets, resulting in a 30% improvement in overall platform stability
- Developed and maintained comprehensive tutorials, world templates, guides, and technical documentation to enhance creator knowledge and content quality

Game Developer **Nov. 2021 – Mar. 2022**

Human Mode

- Designed and implemented a reactive AI combat and player stealth system using C# and Unity, enhancing gameplay across four game environments and increasing returning players by 9%

Projects

Controller 2 OSC (C2O) | Native C# / WPF Application

- Architected a lightweight, GUI-driven Windows application in C# and WPF to seamlessly bridge physical hardware and digital XR environments
- Implemented a dedicated multi-threaded high-speed loop using SDL2 for real-time hardware polling and low-latency Open Sound Control (OSC) broadcasting
- Built an intuitive in-place dashboard and UI for real-time input monitoring, custom FFB testing, and JSON profile management

Massive Loop VR & PC Bowling Club

- Developed a multi-platform VR and PC Physics Driven Bowling game, featuring fun intuitive game play, complete with interactive mechanics, fully functional physics based darts and dartboard, and cross-device synchronous multiplayer functionality to enhance player engagement
- Implemented an intricate synchronized scoring system and dynamic 3D UI elements for player customization

Oklahoma City University Virtual Campus

- Led the development of the official OCU cross-platform VR & PC virtual campus environment
- Integrated Photon Cloud data pipelines with C# to enhance aggregate user data collection alongside realistic vehicle mechanics

Education

Oregon State University

Bachelor of Science in Computer Science *Corvallis, OR*