Brandon Withington

503-267-0618 | brandon.f.withington@gmail.com | Linkedin | Portfolio

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 — Mar. 2022 – Present

Human Mode

- Designed and implemented core game mechanics and led the development of 50+ cross-compatible VR, and PC game world environments for a Unity-based Metaverse platform, driving 38% of total user visits across the platform
- Optimized platform-wide performance by identifying and resolving bottlenecks using GPU, and memory profiling tools, resulting in a 30% improvement in platform stability
- Resolved technical issues related to content creation tools, in-game services, and platform functionality, ensuring a seamless experience for creators. In addition, developed and maintained comprehensive tutorials, guides, and technical documentation to enhance creator knowledge and content quality
- Spearheaded a team initiative to foster the creator community and bolster world creation on the platform by creating example template worlds, analyzing trends and feedback to identify pain points, proposing actionable solutions to our team, and aiding in implementation. Resulting in improved platform features and an increase in uploaded worlds by 12%

Game Developer — Nov. 2021 – Mar. 2022

Human Mode

- Collaborated with artists and game designers to develop and launch a new game mode, increasing daily active players by 15% within the first month of its release
- 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%
- Developed rapid prototypes of game environments and mechanics by collaborating with multidisciplinary teams, running quality assurance testing events, increasing user engagement on the platform by 12%

Projects

Multi-platform Mini-golf Game & Framework

- Constructed a mini-golf game environment set in a vibrant fantasy-themed world, featuring obstacles, dynamic lighting, and immersive sound design to enhance gameplay across VR and PC platforms
- Designed and implemented numerous control schemes to support various player types and play-styles
- Published the framework as a shareable package showcasing proper physics handling as an example for community content creators to build upon

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 alongside fun ways for players to express themselves by customizing their bowling ball colors, and dynamically adjusting their size

Oklahoma City University Virtual Campus

- Led the development of the official cross-platform VR & PC virtual campus environment for Oklahoma City University's Admissions department
- Optimized virtual campus and classroom systems, integrated Photon Cloud data pipelines with C# to enhance the collection of aggregate user data, integrated fun golf-cart with realistic mechanics

Education

Oregon State University

Bachelor of Science in Computer Science — *Corvallis, OR*