Jesse Johnson
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EDUCATION

Bachelors in Computer Science, 2015
Transylvania University, Lexington KY

Masters in Integrated Digital Media, 2017
NYU Tandon School of Engineering, New York, NY

WORK EXPERIENCE

Lead Developer, Beat the Bomb, Brooklyn NY, 2017-present
- Architected, engineered and managed every in-house software development project
- Built a high-tech immersive gaming experience from the ground up -- a networked ecosystem of ten synchronized, activated game rooms and a data-driven backend.
- Built 10 games in Unity game engine
- Built two Node.js servers to handle data transfer between the rooms, a state machine to coordinate the actions performed by the rooms, and a scheme to synchronize timekeeping in all of the rooms
- Created and/or curated all imagery, videos, and audio for games and lobby applications
- Designed and engineered a robust scene handling system in Unity that allows a central server to dictate which scenes a Unity app in a particular room will load, based on several data-driven factors
- Implemented an audio and video resource loading system to compliment iterative design processes and to swap large media assets used by an app at runtime
- Recreated the real experience as a prototype VR experience complete with custom avatars.

Unity AR Developer, Local Projects, Manhattan NY, 2017-2018
- Engineered AR apps in Unity (C#) and OpenFrameworks (C++) for the Microsoft HoloLens
- Helped integrate an onboard webapp to help control the AR experience with a phone or other devices that use a browser
- Developed a workflow to get the work of motion graphics designers into Unity (C#) scenes for HoloLens implementation
- Engineered spatial tracking, occlusion, and anchoring methods to solve unique problems presented by the client
- Collaborated with top designers via paper prototypes, iterative development, and runtime-controlled parameters to ensure the aesthetics of the app met the client's expectations
- Installed application at a conference hosted by the client, Ernst and Young

Freelance Unreal Developer, Manhattan NY, 2016-2018
- Worked with film production firms and artists to develop virtual reality experiences in Unreal 4.
- Imported complex models and animation assets -- assets typically designed for film, not games
- Optimized assets and logic to keep the experience at a comfortable framerate.
- Integrated advanced design and programming techniques to work well with virtual reality.
- Featured at the Cinequest Film Festival in San Francisco.

Creative Technology Intern, Eyebeam, Brooklyn NY, December 2015 - August 2016
- Provided technical knowledge on VR, AR, audio engineering, and digital fabrication to resident artists
- Developed a networked AR experience using the Microsoft Kinect (C++) and Unity (C#)
- Built a VR app in Unreal (C++)