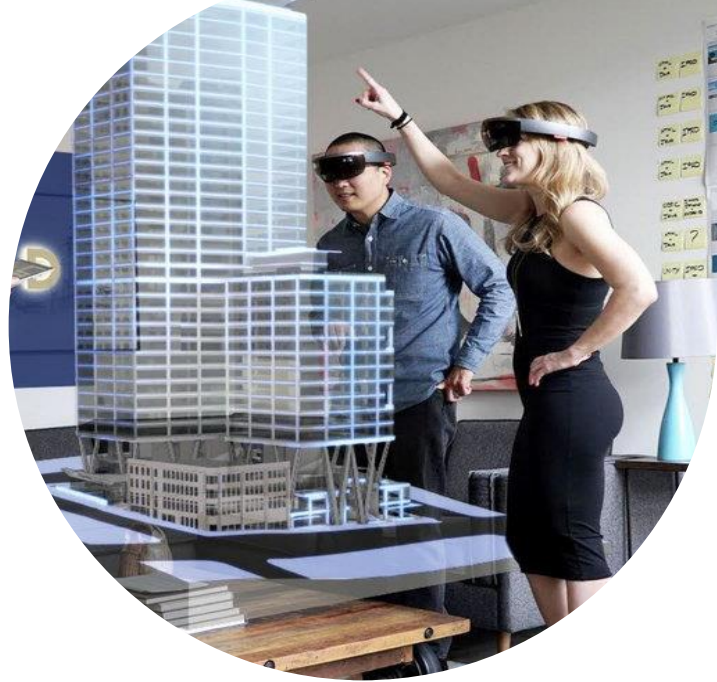


Virtual Reality as a Catalyst in
Real Estate with Our Unique
Strategy

We all have heard about the Virtual Reality implementation in games. It seems a quite easy task right, but it's not fellas! Implementing VR in real estate was indeed a challenging task for us. The reason was to keep the precise details in mind and effectively to represent them.



We created a virtual reality for real estate demo for an interior project with a photorealistic rendering of homes using Gear VR/ iOS / Android. Virtual reality in real estate is the latest trend in the market which offers an immersive experience for the user. We needed to render each object in the world twice which doubles the rendering complexity.





Considering Every Single Aspect, We Created
This **VR Experience** of **Interior Design** to Give



Exterior

We designed realistic 3D architectural rendering and animation for retail buildings, residential properties, and hotels. In the exterior, we built the prototype before actual construction started, which helped in showcasing demos.

Interior

We offered the interior design with a real-feel view and added the elegance in your dream property. It showed the live view of home decor, the design which helped the buyers to have a better idea of the property.





360-Degree Panoramic Tour

We designed realistic 3D architectural rendering and animation for retail buildings, residential properties, and hotels. In the exterior, we built the prototype before actual construction started, which helped in showcasing demos.

Floor planning

Floor planning helped our clients to easily visualize and conceptualize their dreams in the design of their homes and properties in 3 dimensions through our 3D floor plan, 3D site plan, and 3D sections plan.



Video Production

Whether commercial or Social, Religious or Personal, Presentation would be the first step to communicate the message to the target audience. But good video presentation is not only the montage of images, but it also needs that strength to attract customers which can be done with VR.



THE CHALLENGES

- Video Shaders
- Lighting
- Multisampling Anti-Aliasing (used for smoothing jagged edges) Production



HOW WE RESOLVED THE CHALLENGES



Shaders

Standard shaders seemed bit heavy on Gear VR as it's a mobile device. We had to avoid transparent and reflective materials when we were running on Gear VR powered by Note 4; however, Note 5 was powerful enough to use those shader and better effects.

Multisampling Anti-Aliasing

MSAA above 2x didn't give visible improvements in the quality, and it was degrading the performance. There should be the optimum balance between performance and quality which is only determined by profiling or testing.





Lighting

On the mobile devices using real-time lighting is not a good idea. We needed to go for light baking. Baking of 300 MB model was too much time-consuming. We had to switch to external baking used mental ray to produce occlusion mapper object.

To give the final output, we combined the lighting map involved directional light with Photoshop. Legacy light mapped shaders were used for each material. The result of the entire process was not significant. We again restarted the standard Unity baking process to achieve lightmapping with tweaking few options which were lengthening the baking process. Much optimized rendering was achieved after disabling final gathering phase.

Technology Used

- Unity3D
- WebGL



Contact us below if you are interested in exploring Virtual Reality potential to Real Estate.



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