

InteriorVR

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Project Overview

- Interactive virtual house tour
- House object interaction
 - Insert
 - Modify
 - Remove
- Compare two houses simultaneously.



Background

- Pandemic has caused a shift to online tools
- Current virtual house tours are simply a collection of images
- Only way to interact with houses is to go in person

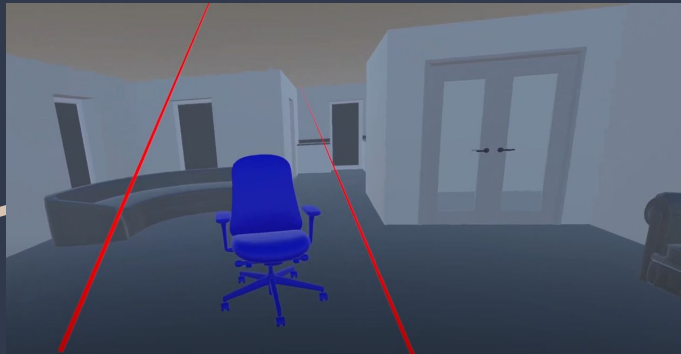
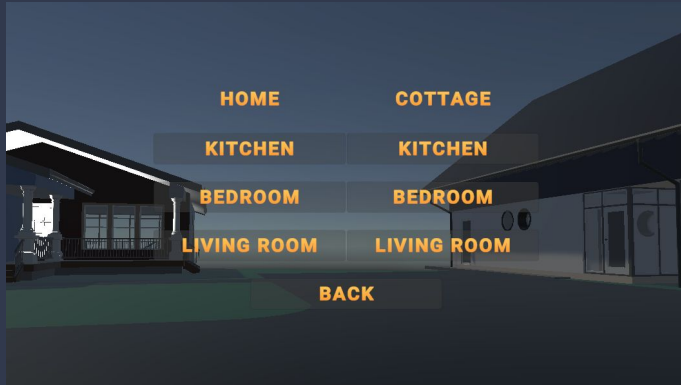


Target Users

- Potential home buyers
- Real estate agents
- Interior designers



Unique Features



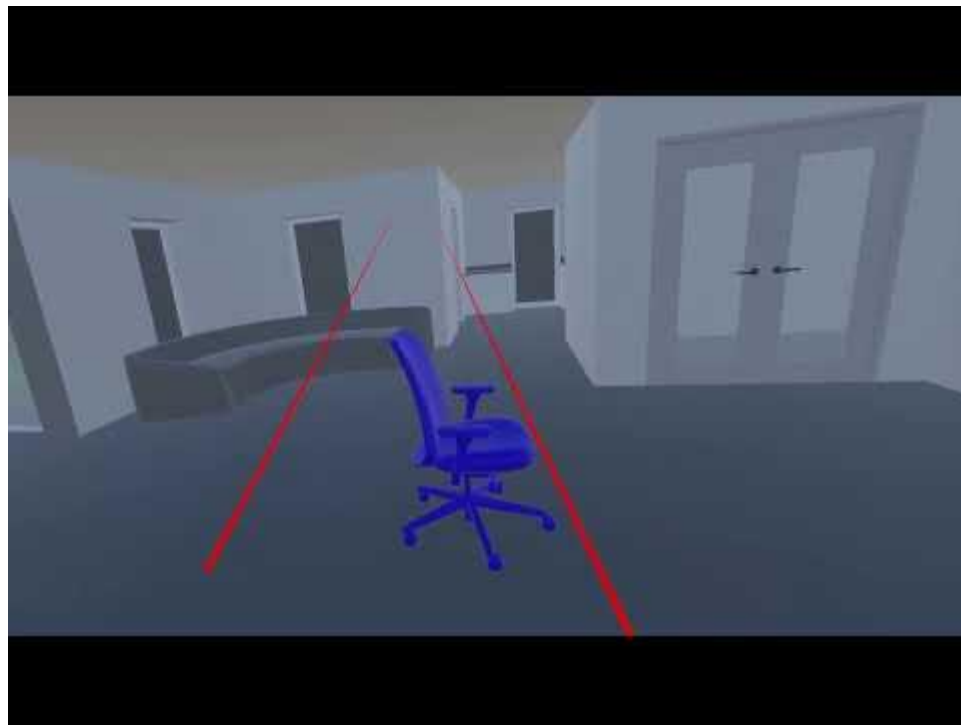
- Single or multiple objects
- Objects Editing
 - Add
 - Move and Rotate
 - Change the color
 - Remove
- Mouse and Keyboard AND VR
- Teleport between two different houses to directly compare them

VR Adaptation

- Learning to work with OpenXR library
 - This did most of the complex math and interfacing with the equipment itself
- Biggest challenge was adapting to new control scheme
 - Point controller vs. move mouse
 - Controller buttons and joysticks instead of keyboard



Demo



Challenges

- Early hiccups with Git from lack of experience and Unity background files
- Developing a desktop and VR application at the same time
- Making the player movement feel natural and being able to move up and down staircases
- Using the Unity XR interaction library with newly added objects in runtime

What We Learned

- Coding in C#
- 3D modeling
- VR and libraries in Unity
- UI and menu creation
- Git and version control

Thank You

Questions?

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