

## Assignment 2: VR Scene

In this second honors track assignment, your task is to create a VR scene in WebXR with A-Frame, Unity, or Unreal using the following steps:

1. Add camera rig to 3D scene & view in VR (requires VR headset)
2. Adapt the 3D scene for VR (scale, layout, perspective)
3. Make it more immersive (environment/terrain, lights, sounds)
4. Optional: Add support for travel (menu, teleportation)
5. Optional: Add support for object manipulation (near/far)

Expected results

- Better sense of scale and perspective in VR
- Create VR experience in layers (fore-/mid-/background)
- Support interactions for travel, object selection & manipulation

Submission

**Please submit the following information and supplementary materials (as PDF document, PNG image, MP4 video) to the VR Scenes Gallery:**

**Title:** Choose a descriptive title based on your idea. This text will appear as the title of the submission in the gallery.

**Category:** Choose the category of VR experiences that best fits your scene. Basic VR should be used for simple scenes; Immersive VR should be reserved for complex ones.

**Platform:** Choose the XR platform (WebXR, Unity, Unreal) you have used to create the VR scene.

### **Summary of Key Interactions & Reflection:**

- **Key Interactions:** Summarize your ideas for the VR scene. Describe what the key explicit/implicit interactions are in the scene including the support for travel (optional) and near/far object manipulation (optional).
- **Reflection:** Reflect on the development process with your chosen platform and toolkits. What was easy/hard? Where did you get stuck?
- **Questions:** Ask for feedback or advice. You should indicate whether you are done or if you are looking for help from others. In either case, it's important you ask specific questions about your solution / problem.

*(continued on the next page)*

## **XR MOOC Specialization Course 3: Developing XR Applications with WebXR, Unity, & Unreal**

Dr. Michael Nebeling

### **Attachments:**

- **Screenshot of 3D scene:** Submit a screenshot of your 3D scene. This is important as it provides a reference both for you and for other learners that are asked to provide feedback on your work.
- **Screenshot(s) of VR scene and key interaction:** Submit up to two screenshots of your new VR scene that illustrate a key interaction.
- **(optional) Screenshot of optional interactions:** If you implemented support for the optional components, travel and object manipulation, try to show that.
- **(optional) Screenshot of tool:** Optionally, you can show how you used your chosen platform and toolkits, which can be helpful if you're looking for help.
- **(optional) Demo video:** Optionally, submit a short narrated screen capture of the VR experience from the first person, so with you previewing your scene in 3D or running it on a VR device. **Try to stay below two (2) minutes; the total upload limit is 50 MB.**