# Dhruv Bhojaraj



#### **EXPERIENCE**

Next Tech Lab Nov 2022 - Present

**Board Member** 

- QS award-winning student-led research lab of 5 departments dedicated to working on latest technologies in their fields, including ML, Game and App Development, Extended Reality, Cryptography/Cyber-Security and IOT.
- · Handled Management of Pausch Lab, taking interviews and handling events such as game-jams.

InsightXR Feb 2024 - May 2024

Unity VR developer

- Constructed InsightXR's Package for Unity VR development, including sample scenes, documentation, API etc.
- Devised the main pipeline for motion data and hand pose serialization, motion replay and WebGL export, combined with AWS S3 deployment

Realm18 Studios Sep 2022 - Oct 2023

Assistant Story Writer and Terrain Modeller

- · Created Terrain in Unity using sculpting tools and texture painting, used Blender to make initial design
- · Made story elements for the game, including character back story, world lore, etc

## **EDUCATION**

SRM Institute of Technology, Chennai, Tamil Nadu, India

Sep 2022 - Jun 2026 (Expected)

Bachelors in Computer Science

Relevant Coursework: Metaverse (Digital Twinning), Computer Graphics and Animation.

Relevant Certifications: Unity VR Development, Unity Mobile AR Development

## PERSONAL PROJECTS

**Wand Game VR** | *Unity3D, XR Interaction Toolkit, Blender, C#, NewtonSoft JSON.Net* 

- · Spell casting VR experience to give the player the power to draw shapes and letters in the air for different actions
- · Utilizes Procrustes analysis for letter recognition, resulting in nearly instantaneous response times.
- Gives open-source enthusiasts the oppurtunity to contribute more shapes through the modular design of the system

Project Vasundhara | Unity3D, XR Interaction Toolkit, Blender, C#, NewtonSoft JSON.Net

- · VR interactive experience aimed to teach Chemistry to children from elementary to middle school.
- Helps demonstrate the connection between chemistry and the real world through minimalist 3d rendering.
- · Wrote a modular crafting system that uses JSON to create recipes; Created the molecule name viewing system.

**Ray Engine** | *C#, RayLib-cs* 

• Unity-like engine written in pure C# via RayLib acting like a wrapper to allow more OOP and Component like development.

**Music Tunnel** | Blender 3D, Geometry Nodes, EEVEE Engine

• 3D Neon Tunnel experience made through Procedural Geometry depicting flow of music in a person's mind

**Procedural Galaxy Generator** | *Unity3D, Spline* 

• 3D Galaxy Generator that builds a unique arrangement of visually appealing stars in combination of Unity's Spline Package, and GPU Mesh Instancing

**Rocky Planet 'n Moon** | Blender 3D, Shader Nodes

· 3D animation of a planet and its moon, using procedural material creation made on Blender's Shader Node System

Alien technology Orb | Blender 3D, Geometry Nodes

• 3D art of an alien liquid metal orb floating on an unnamed planet

**Dimension Rendering** | *Unity3D, AR Foundation, Blender3D* 

· 3D Viewer that places a portal on any wall to show what looks like another dimension through the portal

### **SKILLS**

Languages - C, C#, C++, Java, Python

Frameworks - Unity3D, Blender3D, AR Foundation, Unity XR interaction Toolkit, Raylib-cs, JSON.Net

## **ACHIEVEMENTS**

CAD 2.0 - Won 1st Place for creating a VR application in the field of EdTech.

[PROJECT LINK]

Walmart Sparkathon - 3D Catalog viewer with GLTF loading along with information fetching from dashboard [PROJECT LINK]

[PROJECT LINK]

SIH and IndiaHCI (SDC) - Interactive Social VR Application created to aid students with learning disablities