# Dhruv Bhojaraj

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## 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.

**Smollan (for Google)**                                                        Sep 2024 - Jan 2025
*AR Unity Developer*
- Created multiple prototypes for google interactive advertisements using Unity UI Toolkit
- Built an AR application for furniture placement, allowing users to optimize and customize their interior design in real-time.

**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
*Bachelors in Computer Science*
**Relevant Coursework** : Metaverse (Digital Twinning), Computer Graphics and Animation.
**Relevant Certifications** : Unity VR Development, Unity Mobile AR Development

## PERSONAL PROJECTS                                                       *Titles as Links*

**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

**Walmart Interactive** | *Unity3D, XR Interaction Toolkit, Blender, C#, NewtonSoft JSON.Net, GLB*
- Collaborated with a team of three to create a VR application for Walmart Sparkathon, integrating real-time item registration and 3D model generation pipelines.
- Designed and developed the VR front-end, enabling users to retrieve product models and data dynamically during runtime.

**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.

**Dimension Rendering** | *Unity3D, AR Foundation, Blender3D*
- An Augmented Reality Application that lets you place a Portal on any wall and view a different dimension. The project was inspired by Minecraft.

**Ray Engine** | *C#, RayLib-cs*
- Studied Graphics and Game Engine Design to build a simple Game framework on top of RayLib purely with C#
- Modeled the frameworks's structure after Unity's component-based architecture, enabling intuitive object management and execution flow.

## 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 Vasundhara)        **[PROJECT LINK]**