

Manibalan Balaji

Immersive Tech Creator

 [LinkedIn](#) |  +91-6382034843 |  www.bmbverse.com |  bmanibalan2000@gmail.com |  [GitHub](#) |  [Artstation](#)

Objective

Passionate 3D Technical Artist and XR Developer with expertise in Unity, Unreal Engine, and Blender, focused on creating optimized, real-time environments and interactive experiences. Skilled at bridging creative and technical workflows, I build high-quality assets while continuously advancing into shaders, rendering pipelines, and scalable systems. Eager to contribute to efficient production pipelines and deliver impactful real-time experiences.

Skills

- **3D Environment & Asset Creation**
 - VFX | Photorealistic Rendering | Lighting & Material Realism | Modeling | Animation | Visual Storytelling | Environment Design
- **Real-Time & Interactive 3D**
 - Unity 3D | Unreal Engine | AR/VR Development | Model-viewer | Verge3D | Real-time Web Rendering
- **3D Asset Optimization**
 - Scene Setup & Optimization | Texture Baking | UV Mapping | Model Compression for WebAR | Basic Shader Graph Exposure
- **Tools & Software**
 - Blender | Unity | Unreal | Cinema 4D | Davinci Resolve | After Effect | Canva | Substance 3D Painter | KIRI Engine | PolyCam | RealityScan | Matterport | WebXR | Oculus
- **Additional Skills**
 - Python | SQL | Git | BigQuery | Power BI | Pandas | Hugging Face | AWS Cloud | Google Workspace | Google Analytics
 - Languages: Tamil | English

Projects ([Link](#))

- **Interactive VR Room from 2D Blueprint | [Link](#)** Unity 3D | Oculus | Meta Sdk | Blender
 - Transformed 2D architectural drawings into a fully interactive 3D training room experience using Blender and Unity.
 - Designed all 3D assets, spatial layouts, lighting, and textures to accurately reflect the planned construction layout.
 - Developed a VR application that allows stakeholders to explore the room virtually, test interactions, and provide feedback before physical construction.
 - Delivered a precise and immersive simulation to improve design validation and client approval workflows.
- **WebAR Experience for Indian 2 Promotion | [Link](#)** Glitch | Blender | model-viewer
 - Designed and developed a WebAR application for **Sony Music India** to promote the launch of the *Indian 2* movie song.
 - Created and optimized a 3D animated model in Blender for real-time AR rendering on mobile devices.
 - Delivered a seamless, app-free AR experience that increased user engagement through interactive visualization.
- **CPR Simulation in Mixed Reality | [Link](#)** Unity 3D | Oculus | MRTK | Blender
 - Designed and developed a complete CPR training simulation for Mixed Reality environments using Unity and MRTK.
 - Created realistic 3D human models and animations in Blender to replicate life-saving CPR procedures.
 - Implemented interactive hand-tracking and gaze-based instructions to guide users through step-by-step resuscitation in a spatial environment.
 - Delivered a fully immersive MR experience that can be used for medical training, demonstrations, and interactive health education.
- **Immersive Pharma Experience – 360° Animation | [Link](#)** Cinema 4D | Oculus | Davinci Resolve
 - Developed a **360° pharmaceutical animation** transforming medical content into an immersive VR-ready experience.
 - Modeled and refined **pharmaceutical assets and environments** using Blender and Cinema 4D.
 - Rendered **photorealistic scenes using Redshift** with accurate lighting and materials.
 - Visualized the **Inclisiran injection process**, enabling healthcare professionals to understand the treatment workflow.

Manibalan Balaji

Immersive Tech Creator

 [LinkedIn](#) |  +91-6382034843 |  www.bmbverse.com |  bmanibalan2000@gmail.com |  [GitHub](#) |  [Artstation](#)

• AR Indoor Navigation System | [Link1](#)

Unity 3D | AR Foundation | Matterport | Blender

- Transformed real-world indoor spaces into an interactive AR navigation experience by capturing environments using Matterport and converting them into optimized 3D assets.
- Processed and optimized scanned models through mesh simplification, UV mapping, and texture baking to ensure real-time performance.
- Developed an AR-based navigation system in Unity that enables users to visualize paths and navigate complex indoor environments intuitively.
- Implemented spatial alignment and interactive guidance elements to enhance user experience and accuracy.
- Delivered a scalable and efficient solution for real-world indoor navigation and spatial understanding.

• 2D Blueprint to Interior 360° Walkthrough | [Link1](#)

Orbix360 | Blender

- Converted a 2D house blueprint into a detailed 3D interior model using Blender, accurately representing layout, materials and lighting
- Designed and textured all interior elements to reflect a realistic, client-approved style and scale.
- Exported scenes as 360° panoramic views and published them via Orbix360 to create a seamless, interactive virtual walkthrough.
- Delivered a fully navigable interior experience to help clients visualize space planning and finishes before construction.

Education

• IIT-M Advanced Programming Professional & Master Data Science IIT-M GUVI

May 2024 - Nov 2024 | Chennai

• Bachelor Of Engineering In Biomedical Engineering KPR Institute Of Engineering & Technology

Jun 2018 - May 2022 | Coimbatore

Experience

• Immersive Tech Creator | AllReal Pvt Ltd

Jan 2022 - Current | Coimbatore

Design and develop immersive 3D experiences and optimized digital assets for AR, VR, and web platforms, working closely with designers, developers, and clients to bring ideas to life through interactive visual storytelling.

Key Contributions:

- Designed and modeled detailed **3D environments and assets in Blender**, focusing on realistic materials, lighting, and optimized geometry to ensure smooth performance in real-time applications.
- Built **interactive WebAR experiences** for marketing campaigns, enabling users to explore products directly through mobile browsers without needing dedicated apps.
- Transformed **2D architectural blueprints into immersive 3D environments**, allowing clients to visualize spaces through engaging virtual walkthroughs.
- Developed optimized 3D assets for real-time rendering in Unity, carefully balancing visual quality and performance across multiple devices.
- Managed multiple XR projects simultaneously, coordinating with cross-functional teams to maintain high production quality and meet tight project deadlines.
- Created **visual presentations, demos, and showcase videos** to clearly communicate design ideas and project outcomes to stakeholders and clients.

Certificates

- Google Data Analytics Professional Certificate - [Coursera](#)
- The Complete Python Course - [Udemy](#)
- Introduction To AI - [TCSION](#)