

# Vishnu GM

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## SUMMARY

Senior Unity Game Developer with strong expertise in **gameplay systems, AR/VR/XR development, and real-time simulations**. Experienced in building and delivering **mobile games, immersive training applications, and metaverse platforms** using **Unity and C#**. Proven ability to **architect networked systems**, integrate **LCMS and REST APIs**, manage **Unity Addressables**, and own **end-to-end build and deployment pipelines**. Skilled in developing **core gameplay mechanics**, implementing **custom analytics and user progress tracking**, and optimizing performance for **mobile and VR platforms**. Adept at collaborating with cross-functional teams, mentoring developers, and delivering scalable, production-ready applications for global clients.

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## EXPERIENCE

### Unity Developer

#### FREELANCE

- Developed a **real-time robotic AR simulation** for a German client, enabling users to remotely control a **physical robot** by manipulating its **virtual hands**, with synchronized real-time motion.
- Implemented **bi-directional real-time communication** between virtual and physical systems to allow robot operation without direct visual access to the real robot.
- Built **Art Brush**, a **metaverse-based collaborative learning platform** for a Saudi client, allowing mentors and students to join virtual rooms and create **3D drawings in space and on canvas**.
- Integrated **Photon Fusion and Photon Voice** to enable real-time multiplayer interaction, voice communication, and mentor guidance within the metaverse environment.
- Integrated **Open Brush (open-source)** tools and **Meta Avatars** to enhance immersive creative and social interaction.
- Implemented **REST API integrations** for **LCMS connectivity**, enabling data exchange and session tracking.
- Developed an **AR-based router troubleshooting POC for STC Saudi**, using **Vuforia** to scan routers, automatically detect device models, identify faults, and suggest solutions.
- Created a **VR simulation of a sewage purification machine** for **ABL Engineering**, visually demonstrating internal working processes and operational flow.
- Developed **Habinx Interior VR**, an immersive interior visualization system that allows users to estimate interior costs by interactively selecting **furniture, wall colors, and layouts** in VR.

### Senior Unity Developer

#### HiFx IT & Media

January 2025 - December 2025, Ernakulam

- Led the development of the mobile game **Talmid** as a **Senior Unity Game Developer**, owning core gameplay systems and technical execution.
- Architected and implemented the **network communication layer**, designing all **LCMS integrations** and data flow between the game and backend services.
- Managed **Unity Addressables** for efficient content delivery, memory optimization, and scalable build management.
- Owned the **build pipeline**, preparing stable production builds and managing deployment-ready game versions.
- Designed and implemented **core gameplay mechanics and player interaction systems** using **Unity and C#**.
- Implemented **custom analytics and user progress tracking systems** to monitor player behavior, engagement, and progression.
- Optimized performance for **mobile platforms**, ensuring smooth frame rates and responsive gameplay.
- Collaborated closely with designers and artists to translate game design requirements into polished gameplay features.
- Guided junior developers through **technical leadership, code reviews, and best practices**.
- Performed debugging, testing, and iterative improvements based on playtesting and analytics insights.

### Team Lead

#### Smart GC Pro

June 2022 - December 2025, Ernakulam

- Developed a **full-scale airport VR training simulation** using **Unity** and **Oculus VR**, enabling aviation students to experience real-world airport operations in an immersive environment.
- Implemented interactive training scenarios for **immigration, customs, security screening, and boarding processes**, simulating end-to-end passenger workflows in VR.
- Designed highly immersive **aircraft interior experiences**, including **cockpit view simulations**, to enhance operational understanding of aircraft environments.
- Integrated **OpenXR SDK** to support cross-platform VR compatibility and future device scalability.
- Implemented **hand tracking interactions** to allow natural, controller-free user input for navigation and task execution.
- Developed **console-based debugging and runtime controls** to manage scenario states and training flow during VR sessions.
- Optimized VR performance to maintain smooth frame rates and user comfort across complex scenes.

### Technical Lead

## Iluzia Lab

March 2019 – February 2022, CALICUT

- Developed and delivered **AR, VR, and Metaverse applications** using **Unity** for education, training, and simulation-based use cases.
- Built an **immersive VR Museum experience** enabling students to explore and interact with educational exhibits across multiple subjects.
- Converted a **10th-standard SCERT textbook into an AR learning application** using **Vuforia, AR Foundation, and ARKit**, allowing real-time visualization of academic concepts.
- Designed a **Metaverse Classroom** with real-time multiplayer networking using **Photon Fusion and Photon Voice**, enabling avatar-based communication and collaborative learning across countries.
- Developed **Kids AR**, an interactive AR card-based application allowing children to scan cards and interact with 3D animals and numbers through animations and sound.
- Created a **VR Traffic Awareness Driving Simulator** in collaboration with **Cyberdome Kozhikode**, integrating a **physical driving console**, tracking driving behavior, mistakes, and penalty feedback.
- Developed **Meta Doctor**, a metaverse healthcare platform enabling remote doctor–patient consultations and access to medical reports and historical data in **PDF format**.
- Built a **VR Lab simulation** allowing students to perform virtual laboratory experiments across multiple subjects using **VR and AR technologies**.
- Implemented **REST API integrations** for user data management, progress tracking, and report handling.
- Used **Git** for version control and collaborated in a team-based agile development environment.
- Optimized applications for **Oculus VR devices**, ensuring smooth performance, stable frame rates, and immersive user interaction.

## Team Lead

### Embright Infotech

February 2017 – September 2019, Trivandrum

- Developed **Auticare**, a comprehensive **VR-based therapy solution for autism**, designed to support cognitive development, logical reasoning, and anxiety reduction.
- Created multiple **therapeutic VR scenarios** focused on improving attention, decision-making, and emotional regulation for autistic patients.
- Implemented **structured interaction flows** to ensure safe, controlled, and repeatable therapy sessions within VR.
- Designed and implemented **data recording and progress-tracking systems** to capture patient interactions, performance metrics, and improvement trends.
- Enabled **analytics dashboards and reports** allowing **doctors and parents** to analyze therapy outcomes and patient progress over time.
- Optimized VR experiences for **comfort and accessibility**, minimizing motion discomfort and ensuring a calming user experience.
- Collaborated with domain experts to align therapy scenarios with **clinical and behavioral therapy objectives**.

## Unity Developer

### HARICO PVT LTD

SEPTEMBER 2015 – SEPTEMBER 2017, TRIVANDRUM

- Developed and shipped **five mobile games** using **Unity and C#**, focusing on engaging gameplay mechanics, performance optimization, and user experience.
- Contributed to the full game development lifecycle including **gameplay programming, UI integration, debugging, and build deployment**.
- Implemented core gameplay logic and mechanics across multiple genres including **puzzle, adventure, arcade, and action**.
- Optimized game performance for **Android devices**, ensuring smooth frame rates and stable gameplay across different hardware configurations.
- Integrated UI systems, animations, sound effects, and player feedback loops to enhance player engagement.
- Collaborated with designers and testers to refine gameplay balance, difficulty progression, and user retention.
- Performed bug fixing, testing, and iteration based on internal feedback and playtesting results.
- **Games Developed:**
  - *Know Your Star*
  - *Ottam*
  - *Knight at the Museum*
  - *Labyrinth Explorer*
  - *Space Shuttle*

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## EDUCATION

### Bachelor of Engineering

Ponjesly College of Engineering • Tamil Nadu • 2010-2014

- Completed bachelor of engineering in electronics and communication from Ponjesly college of engineering Nagercoil, Tamil Nadu.

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## SKILLS

### Programming & Engines

- Unity 3D
- C#
- Mobile Game Development

### AR / VR / XR

- OpenXR
- Oculus SDK

- XR Interaction Toolkit
- Hand Tracking

### **Multiplayer & Networking**

- Photon Fusion
- Photon Voice

### **Backend & Integrations**

- REST API Integration
- LCMS Integration
- Network Communication Architecture
- Data Synchronization

### **Game Systems & Optimization**

- Unity Addressables
- Build & Deployment Pipelines
- Performance Optimization
- Memory Management
- Debugging & Profiling

### **Analytics & Data**

- Custom Analytics Implementation
- User Progress Tracking
- Player Behavior Analysis

### **Tools & Platforms**

- Git / Version Control
  - Android Build & Deployment
  - ios Build and Deployment
  - Oculus Quest
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