# Nagaraj S

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## SUMMARY

Seasoned **Technical Lead and XR Project Lead** with 14+ years of experience delivering enterprise AR/VR/MR solutions for global clients. Proven experience managing cross-functional teams of 12+ members, driving end-to-end project execution, sprint planning, risk management, and stakeholder coordination. Strong technical background in Unity3D, Unreal Engine and .NET Core enabling efficient translation of business requirements into scalable XR solutions. Passionate about leading high-impact XR programs, optimizing delivery processes, and building high-performing technical teams.

**Key Expertise:**

- **Technical Leadership & Team Management:** Led and scaled cross-functional teams of 6–12+ developers, designers, and QA engineers, delivering complex XR applications with 100% on-time project execution while serving as Azure DevOps Admin for 3D and Web applications.
- **Project & Delivery Management:** Strong experience in Agile/Scrum project execution, sprint planning, backlog management, release planning, and risk mitigation, ensuring smooth coordination between technical and business stakeholders.
- **XR Development:** 6+ years of hands-on experience in Unreal Engine, specializing in UMG design, Level Design, GI Lighting, Material Design, and Pixel Streaming, delivering immersive and high-performance XR experiences across enterprise-scale applications.
- **Cross-Platform Development:** Designed and executed applications for Windows, WebGL, UWP, Android, and iOS, ensuring high coding standards compliance and reducing defects by 25% through structured review and CI/CD processes.
- **Innovation & Integration:** Recognized Subject Matter Expert in Unity3D, Unreal Engine, C#, and .NET Core, with extensive experience integrating plugins such as SteamVR, Odin Inspector, Final IK, Manus VR, and Amplify Shaders to enhance functionality and performance.
- **Team Empowerment & Mentoring:** Improved team productivity by 20% and reduced project bottlenecks by 15% through structured code reviews, technical mentoring, performance feedback, and workflow optimizations across multiple parallel projects.
- **Enterprise Deployment & MDM:** Successfully led MDM (Company Portal) deployments for Microsoft applications, including HoloLens 2, ensuring seamless device management, security compliance, and large-scale user adoption.
- **MDM Deployment:** Successfully led **MDM (Comp Portal)** deployments for Microsoft applications, including **HoloLens 2**, ensuring seamless integration and user adoption.

Driven by a passion for innovation and leadership, I thrive on solving complex technical challenges while building high-performance teams. My goal is to continue pushing the boundaries of XR technology while mentoring and leading teams to deliver scalable, enterprise-grade immersive solutions.

## PROFESSIONAL EXPERIENCE

### TECHNICAL LEAD (XR) | APPLIED MATERIALS INDIA | OCTOBER 2021 – PRESENT

- **Project Ownership:** Led end-to-end project delivery for multiple enterprise XR programs — from requirement analysis and planning to execution, release, and post-deployment support.
- **Project Planning & Resource Management:** Managed project plans, sprint schedules, and resource allocation for a 12+ member cross-functional team across Unity, Unreal, QA, and DevOps.
- **Stakeholder Management:** Acted as primary point of contact for internal stakeholders and business leaders, providing regular project status, risk updates, and delivery timelines.
- **Risk & Dependency Management:** Identified and mitigated project risks and cross-team dependencies, reducing delivery risks and improving release predictability by 30%.
- **System Architecture:** Designed and implemented scalable architectures for **XR applications** using **Unity3D** and **Unreal Engine**, reducing development time by 25% and improving system performance by 30%.
- **Technical Strategy:** Defined technical roadmaps for **XR and Full Stack projects**, aligning with business goals and ensuring 100% on-time delivery.

- **Full Stack Development:** Architected and developed **RESTful APIs** using **.NET Core** and **Node.js**, enabling scalable and efficient server-side solutions that reduced API response time by 20%.
- **XR Integration:** Integrated **WebXR, OpenXR, AR Foundation**, **ARCore**, and **ARKit** into projects, enhancing user engagement by 25% and improving operational efficiency by 30%.
- **DevOps & CI/CD:** Automated deployment processes using **Jenkins**, reducing deployment time by 40% and improving success rates to 98%.
- **Team Leadership:** Led a team of 12+ members, fostering a culture of collaboration and innovation, resulting in a 20% improvement in team productivity.
- **Cross-Functional Collaboration:** Worked across UX/UI, modeling, QA, and stakeholder teams to deliver seamless, user-friendly interfaces, improving user satisfaction by 20%.
- **Innovation & R&D:** Spearheaded research on emerging technologies, driving innovation and staying ahead in the rapidly evolving XR space.

## SENIOR XR DEVELOPER | HNS TECHNOLOGIES PVT LTD, INDIA | APRIL 2017 – OCTOBER 2021
- **Designed and implemented** immersive VR and AR experiences for **HTC Vive, Android, and iOS**, ensuring smooth cross-platform performance and optimal user experience.
- **Collaborated with clients** to gather requirements, create and maintain **detailed design documents**, and ensure alignment with project objectives.
- **Developed and optimized** Virtual and Augmented Reality applications using **Unity3D and Unreal Engine**, focusing on performance, interactivity, and scalability.
- **Integrated and customized** various VR SDKs (OpenXR, SteamVR, Oculus, ARKit, ARCore) to enhance application functionality and user experience.
- **Led and managed Git repositories**, implementing best practices for version control, CI/CD, and team collaboration.
- **Optimized rendering pipelines** for VR, ensuring **high frame rates and minimizing motion sickness** through efficient graphics and physics calculations.
- **Built networked multiplayer VR experiences**, focusing on **low-latency synchronization** and seamless real-time interactions.
- **Developed custom Unity editor tools** to automate workflows, improve asset management, and boost developer productivity.
- **Implemented object pooling, animation systems, and physics-based interactions** to enhance gameplay performance.
- **Conducted R&D on emerging technologies**, evaluating their potential for future projects and staying ahead in the rapidly evolving VR/AR space.
- **Strong problem-solving and debugging skills**, with experience in profiling, memory management, and code optimization for real-time applications.

## ASSOCIATE – AR/VR | COGNIZANT, INDIA | SEPTEMBER 2016 – APRIL 2017
- **Collaborated closely with cross-functional teams** to plan, design, and develop **scalable and robust solutions**, ensuring seamless integration across platforms.
- **Designed and architected application layouts**, focusing on performance, maintainability, and scalability.
- **Researched, explored, and showcased** new and emerging technologies, driving innovation within the team.
- **Developed clean, maintainable, and extensible code** following best practices in software development and team collaboration.
- **Optimized data storage, retrieval, and manipulation processes**, enhancing system performance and analytics.
- **Integrated Vuforia SDK** for **Augmented Reality (AR) applications**, enabling advanced marker-based and marker less tracking.
- **Participated in rigorous code reviews** and established coding standards to improve software quality and maintainability.
- **Developed a custom voice recognition plugin** using **Google Speech Recognition API** in Android Studio, enhancing user interaction and accessibility.

## SENIOR UNITY3D DEVELOPER – AR/VR | JIT GLOBAL INFO SYSTEMS PVT LTD, INDIA | FEB 2015 - AUG 2016
- **Developed a custom Android plugin** for seamless content sharing across multiple social networks, enhancing user engagement.

- **Collaborated with professors and faculty** to design and develop an **educational AR application** using **Vuforia SDK**, enabling students to explore machinery parts interactively.
- **Integrated Vuforia SDK for Augmented Reality (AR) development**, implementing advanced **marker-based and marker less tracking** for immersive experiences.
- **Implemented smooth transitions between AR and VR modes**, allowing users to seamlessly switch between immersive environments.
- **Participated in code review processes**, ensuring high-quality code and establishing best practices for design and architecture.
- **Designed and developed interactive features**, including **dynamic position placement and machine functionality demonstrations**, allowing users to tap on virtual components for real-time insights.

**SENIOR GAME DEVELOPER – UNITY3D | BLISSLOGIX TECHNOLOGY SOLUTIONS PVT LTD, INDIA | JAN 2014 - JAN 2015**
- **Developed and maintained** high-performance **mobile games and applications** using **Unity3D Engine**, ensuring smooth gameplay and engaging user experiences.
- **Implemented real-time physics interactions** in **Unity3D**, enhancing realism and responsiveness in gameplay mechanics.
- **Experienced in developing isometric projection games**, optimizing camera systems and user interactions for a seamless 2.5D experience.
- **Converted Flash SWF animations to Unity3D**, modernizing legacy content while ensuring fidelity and performance optimization.
- **Handled UI programming, UI animations, gameplay bug fixing, and code optimization**, improving overall game stability and user engagement.
- **Collaborated with the Art Team** to integrate **3D models, textures, animations, and visual effects**, ensuring high-quality game assets.
- **Proactively researched and explored Augmented Reality (AR)** applications, investigating innovative use cases and emerging technologies for future development.

**GAME DEVELOPER | ZEALCITY STUDIOS PVT LTD, INDIA | MAY 2011 - DEC 2014**
- **Gained in-depth knowledge of the game industry**, mastering **C#, Lua, and Adobe Flash ActionScript** for game development.
- **Designed, programmed, and implemented UI systems, menus, and core functionalities**, ensuring intuitive user experiences.
- **Developed and maintained** high-quality **mobile games** using **Unity Engine**, optimizing for performance and scalability.
- **Implemented real-world physics interactions** in Unity, enhancing gameplay realism and responsiveness.
- **Collaborated with the Art Team** to integrate **models, textures, animations, and visual effects**, ensuring a cohesive visual style.
- **Developed both 2D and 3D games** using **Corona SDK and Unity Engine**, leveraging cross-platform capabilities.

**SKILLS:**
**PROGRAMMING LANGUAGES:** C#, C++, Python.
**SCRIPTING:** Visual Script, Lua, Unreal Engine Blueprint scripting.
**GAME/AR/VR APIs:** Oculus SDK, Vuforia, SteamVR, Microsoft HoloLens, AR Foundation, ARCore, ARKit, ARMedia.
**WEB DEVELOPMENT:** HTML, CSS, JavaScript.
**FRAMEWOKS:** .NET Framework, .NET Core.
**BACKEND:** Node.js.
**DATABASES:** MySQL, SQL.
**DEVOPS TOOLS:** Jenkins, CI/CD Pipelines
**DEVELOPMENT TOOLS:** JetBrains Rider, Visual Studio 2019 & 2022, SSMS, Android Studio, XCode, Anaconda Spyder.
**GAME ENGINES:** Unity3D, Unreal Engine.


**EDUCATION**
**B.E. (COMPUTER SCIENCE ENGINEERING) | 2010 | ANNA UNIVERSITY, INDIA**