

NEERAJ SINGH THAKUR

Game Programmer

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I am graduate from IIT Kanpur, experienced in leveraging agile frameworks to provide a robust code for high level development and have a confident command over Unity3D, C#, C++, Cg/HLSL, Java having worked in AI, Animations, UI, 3Cs, Optimization, Shader Graph, VR/AR, Render Pipelines, Optimization. I am self-motivated critical thinker with excellent communication skills and very passionate about video games and new advancements in gaming industry.

Work Experience

Centre for Content Creation, Game Programmer,

(Jan18 - Present)

- Using IP characters to build game aiming to teach biology for **iOS** platform using **Unity3D** and **C# (VS code IDE)**
- In-charge of builds and debugging of **Android** platform. Using **Git** version control on Source Tree
- Built special skills, weapon auto-toggle, status & hit VFX, **gyro** camera mini-game and in-game alert system
- Helping in **AI, 3Cs, Animations, UI, Shader Graph, Debugging, Optimization** and Scriptable **Render Pipeline**

Build Corner, Unity Programmer, Freelancer,

(Nov 17 - Jan 18)

- Wrote Surface Shaders in **Cg/HLSL** for VR **Oculus Go** to create realistic 'Tile Visualizer' with dynamic patterns and grouts settings that are changeable in runtime with most optimized Unity3D setting

Mech Mocha Game Std. Pvt. Lim., Game Programmer Intern,

(May 16 - July 16)

- **Multiplayer unitypackage** 📦: Built a layer using Java and Android Studio which uses **Bluetooth API & Nearby Connections** and **Messages API** for offline and online communication for Unity3D and C#

Indie Game Developer and Gameplay Programmer

(May14 - Present)

- **Retro Snake3D** 📦: **Procedural generated** levels| Android| designer friendly exposed parameters| Shipped
- **Chemical Carriageway** 📦: Infinite runner| Android| Unity3D, C#| Performance, Size Optimization| Shipped
- **Mixed Reality Encyclopedia** 📦: **VR/AR** edutainment android application for **Google Cardboard** built in 24-hours of Microsoft Code.fun.do hackathon at IIT Kanpur

(Visit my portfolio for more projects and information)

Publications

Reactive Display for Virtual Reality 📦: Designed and built **3D interface** to browse through 360° contents in Virtual Reality and instigate feeling of discovery while exploring 360° and normal content. Tackled the problem of nausea caused by existing interfaces like photospheres by providing an intermediate interface before changing 360° content using **Homography** (Computer Vision) and dynamic field of view of cameras. Poster Paper published at **ISMAR** (IEEE Symposium on Mixed and Augmented Reality)

Technical Skills

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|------------------------------------|---|
| Programming Languages | C# (>3 years), Cg/HLSL, C++, Java, Js (>1 years), C, Python (<1years) |
| Game Engines and IDEs | Unity3D, Android Studio, Visual Studio Code, MonoDevelop, Sublime Text |
| SDKs and APIs | Google VR, Nearby Connections & Messages, Vuforia AR, OpenGL, Bluetooth |
| Version Control & Tools | Git (Source tree, Fork and Terminal) |

Education

Indian Institute of Technology (IIT) Kanpur, Bachelor of Technology,

(Jul 13 – Jul 17)

Major: Materials Science and Engineering, **CPI: 8.0/10.0**

- Data Structure & Algorithms, Computer Science & Graphics, Fundamentals of Computation, Physics, Calculus, Analytic Geometry, Trigonometry, Algebra, Engineering Graphics, Computational Methods in Engineering, OOPs