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 working in games involving AI, Animations, UI, 3Cs, Optimization, Shader Graph, VR/AR and other technologies.

Work Experience

Centre for Content Creation, Game Programmer, *(Jan18 - Present)*

- Using IP characters to build game aiming to teach biology to younger audience in **Unity3D** and **C#** *(VS code IDE)*
- In-charge of builds and debugging of **Android** platform. Used **Git** version control on Source Tree
- Built special skills, weapon auto-toggle, status & hit VFX, **gyro** camera mini-game and in-game alert system
- Helped in **AI**, **3Cs**, Animations, UI, **Shader Graph**, bugs fix, **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 Development *(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 ⬀: Proposed/Built **3D interface** to browse through 360° contents in VR 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

Programming Languages	C# (>3 years), Cg/HLSL, C++, Java, Js (>1 years), C, Python (<1years)
Game Engines and IDEs	Unity3D, Android Studio, VS 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 Graphics, Fundamentals of Computation, Object Oriented Programming, Calculus & Analytic Geometry, Linear Algebra, Engineering Graphics, Computational Methods in Engineering