NEERAJ SINGH THAKUR

Game Programmer

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I am IIT Kanpur graduate, experienced in leveraging agile frameworks to provide a robust code for high level development having confident command over Unity3D, C#, C++. Skilled in AI, UI, 3Cs, Optimization, Render Pipelines, VR/AR. I am creative, self-motivated, critical thinker, excellent communicator and very passionate about games.

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 and Fork
- Built special skills, weapon auto-toggle, status & hit VFX, gyro camera mini-game and in-game alert system
- Adept in AI, 3Cs, Animations, UI, Shader Graph, Debugging, Optimization and Scriptable Render Pipeline

Build Corner, Client Programmer, Freelancer,

(Nov 17 - Jan 18)

• Wrote Surface Shaders from scratch in **Cg/HLSL** for VR **Oculus Go** to create realistic 'Tile Visualizer' with runtime editable patterns and most optimized Unity3D settings. System installed in over 10 major cities of India

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

(May 16 - July 16)

• Multiplayer unitypackage : Built communication library layer using C# and Java. Used Bluetooth API & Nearby Connections and Messages API for offline and online communication for Unity3D and Android Studio

Indie Game Developer and Gameplay Programmer

(May14 - Present)

- Retro Snake3D : Procedural generated levels | Android | Level Design | Game Balancing | 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 contents using **Homography** (Computer Vision) and dynamic field of view of cameras. Tackled the problem of nausea caused by existing interfaces by providing an intermediate interface. Paper published at **ISMAR** (IEEE Symposium on Mixed and Augmented Reality)

Technical Skills

Programming LanguagesC# (3+ years); Cg/HLSL, C++, Java, Js, C (2+ years); MATLAB, Python, HTML

Game Engines and IDEs
Unity3D, Android Studio, Visual Studio Code, MonoDevelop, Sublime Text

SDKs and APIs
Google VR, Nearby Connections and Messages, Vuforia AR, OpenGL, Bluetooth

Version Control & Tools Git (Source tree, Fork and Terminal)

Software DevelopmentDomain, Test-driven and Agile development, Continuous Integration and **Processes & Methodologies**Delivery, Prototyping, SOLID, Scrum, Dynamic Systems Development Method

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, Analytic Geometry Physics, Calculus, Trigonometry, Algebra, Design Patterns, Software Architecture, Object Oriented Programming