Raghav Suriyashekar

Game Developer and Shader Programmer

London, United Kingdom | +447823569534 | raghavsshekar@gmail.com | Portfolio | LinkedIn

I am a game developer driven by an irrational obsession with how things work and a talent for distilling complex problems into elegant, high-performance solutions. My work is headlined by Aural Fields, a ray-traced audio system recognized at **SIGGRAPH Asia 2025** and recipient of the **Best Postgraduate Project** award. I specialize in bridging the gap between technical logic and immersive play, with expertise ranging from GPU-instanced mobile systems to bespoke Inverse Kinematics frameworks for sports games.

Unity | C# | Unreal Engine | C++ | HLSL/Shader Programming | GPU Instancing | Procedural Generation | Gameplay Systems | Tools Development | Mobile Optimization | Physics Simulation | Ray-Tracing

WORK EXPERIENCE

Fountainhead Games Pvt. Ltd. | Consultant, Engineering July 2024 - Present

- Developed a modular, customizable and highly performant 2D audience system with easily modifiable parameters to control position, spread and density along a procedurally derived area defined by Bezier curves.
- Developed a custom Inverse Kinematics based system to provide for more accurate and visually appealing bat-and-ball connections for a Mobile cricket title.

Nextwave Multimedia Pvt. Ltd. | Gameplay and Tools Developer May 2022 - May 2024

- Developed and optimized a high-performance mesh-based shadow system utilizing GPU Instancing and per-instance properties to maintain 60+ FPS on the mobile platform with complex scenes.
- Ported core input scheme and control mappings to console platform for an unreleased title.
- Designed and developed the touch-based input scheme for the Cricket Blitz mobile game.
- Designed and delivered a highly performant crowd/audience rendering solution utilizing GPU Instancing, enabling dynamic randomization of unit appearance and actions while maintaining 60+ FPS on the Mobile platform.
- Developed and implemented an advanced algorithm to convert 2D screen gestures into collision-aware 3D world-space paths.
- Engineered an editor-based object placement system with functionality for exporting and editing level layouts and configurations.

PUBLICATIONS AND AWARDS

Aural Fields: Real-Time Ray-Traced Audio Solution (Master's Thesis)

- Awarded **Best Postgraduate Project** (**Sole recipient**, Kingston University Digital Media cohort, Sept 2025).
- Presented at **SIGGRAPH Asia 2025,** Hong Kong, one of only 3 papers in the 3D audio category.

EDUCATION

Kingston University, London, United Kingdom | 2025 **Distinction**
Master of Science - Game Development (Programming)

SRM Institute of Science and Technology, Tamil Nadu, India | 2021 **8.31 CGPA**
Bachelor of Technology - Computer Science and Engineering