Raghav Suriyashekar

Gameplay Developer and Shader Programmer

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WORK EXPERIENCE

Gameplay and Tools Developer | May 2023 - May 2024 | Nextwave Multimedia Pvt. Ltd

- Conceptualized and Implemented a performant mesh based shadow system using GPU Instancing with per-instance properties.
- Delivered the shadow system to the mobile platform with consistent 60+FPS performance.
- Executed input scheme porting to console platform for unreleased game.
- Prototyped and built rail-shooter platform, traversable dungeon with seeded randomization and a modular turret system for unreleased game.
- Created a procedurally generated and animated spider creature.
- Designed and developed the input scheme for the Cricket Blitz mobile game.

Junior Unity Developer | May 2022 - May 2023 | Nextwave Multimedia Pvt. Ltd

- Conceptualized and Delivered a highly performant crowd/audience solution using GPU Instancing with features to facilitate randomizing audience unit appearance and actions dynamically.
- Reimagined the audience system for the mobile platform with consistent 60+FPS performance for 15000+ audience units.
- Developed an algorithm to convert gestures into 3D paths accounting for collision in world space.
- Designed and implemented an object placement system with features to export and edit layouts.

Prototype Developer Intern | Jan 2022 - May 2022 | Nextwave Multimedia Pvt. Ltd

- Developed a seeded procedural dungeon generation system.
- Defined robust rules for the generation of unique and feature-rich dungeon worlds.
- Improved editor workflow, reduced compilation times and efficiency with assemblies.

Gameplay Developer Intern | June 2021 - August 2021 | Nextwave Multimedia Pvt. Ltd

- Architectured the project for the mobile game Rocket Landing.
- Conceptualized and implemented the core mechanics and UI/interactives systems.
- Blocked out the levels to ensure optimal gameplay experience.

INDEPENDANT PROJECTS

Waterways! - Procedurally generated island with waves, shadows, and clouds.
Islands are procedurally generated and destructible, created using compute shaders. Waves periodically crash into the islands organically.

Realtime 2D Shadow Caster - Geometry Shader-based Shadow Caster
Generating shadow caster meshes for 2D objects in real-time using Geometry Shader in HLSL.

EDUCATION

SRM Institute of Science and Technology, **Kattankulathur | 2021**
Bachelor of Technology - Computer Science and Engineering

Kingston University, **London | 2024**
Master of Science - Game Development (Programming)

SKILLS

- Unity, Unreal Engine
- C#, C++, HLSL, Shader Graph, Compute Shaders
- Git, Version Control