MIDHUN BABU B

Unity Game Developer

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PROFILE SUMMARY

Passionate about innovation and skilled at tackling challenges, known for quickly grasping new concepts and thinking critically to navigate complex projects independently. A self-taught Unity game developer experienced in both 2D and 3D games, with a strong understanding of AR and VR technologies. Committed to creating immersive experiences that push boundaries and captivate players. Dedicated to delivering high-quality, engaging and cutting-edge digital experiences.

TECHNICAL SKILLS

Languages: C#, Java, C

Unity Skill Set: 2D and 3D Game Development, AR (Augmented Reality), VR (Virtual Reality), Shader Graph, Postprocessing, HDRP, URP, Cinemachine, Unity Timeline, Animator Controller, Animations, Audio Manager, Navmesh

Performance and Optimization: Performance Analytics using Profiler, Object Pooling, Occlusion Culling, Batching Techniques, Texture Compression, Sprite Atlas, Async Loading, Script Optimization, UI Optimization

Physics and Gameplay: Character Controller, Wheel Colliders, Particle Systems, Splines, RayCast

Familiar with: Data Structure and Algorithms, Object-Oriented Programming (OOP)

Version Control: Git, GitHub

PROJECTS

Kill Zone (2D Platform Runner Game) YouTube | Source Code

- Developed a **2D** path runner shooting game themed around escaping a dangerous environment created entirely from scratch in **Unity**.
- Designed intuitive controls and engaging gameplay mechanics, implementing multiple levels with increasing difficulty.
- Utilized **C#** scripting for game logic, physics interactions and animations ensuring a smooth and immersive player experience.
- Implemented **AI enemies** with patrol, chase and attack behaviors.
- Added various **traps and obstacles** to challenge the player.
- Implemented a shooting and life management system, with pickups for health and ammo.
- Created a **checkpoint system** to save player progress and manage respawns.
- Enhanced the game experience with immersive **sound effects** and dynamic **particle systems**.

Zee Parking (3D Car Parking Game) YouTube |GitHub

- Developed **AI algorithms** to control cars and **pedestrian** behavior in a **3D** parking game where players must park without colliding with objects within a **time limit**.
- Utilized **Unity's wheel colliders** to achieve realistic vehicle physics, enhancing gameplay immersion.
- Designed **multiple levels** with a **garage system** allowing players to select their preferred vehicle and customize their gaming experience.
- Integrated a **gear system** and **speedometer** for realistic driving simulation, enhancing immersion and player engagement.
- Enhanced player experience by integrating a **360-degree camera view** providing better situational awareness during parking.

2048 Game (2D Board Game) Play | GitHub

- Developed a clone of the famous **2048** game using the **Unity engine** inspired by the original gameplay experience.
- Implemented a scoring system to track player progress and achievements within the game.
- Integrated a **high score system** using **PlayerPrefs** for persistent storage of player records.
- Designed a game over screen to provide feedback and options for **restarting** or **returning** to the main menu.
- Created an intuitive user **interface** for seamless gameplay and easy **navigation**.
- Optimized game performance for smooth operation on **PC platforms** ensuring a seamless experience for players accessing the web-based game.

AR Hoop Shot(AR Game) YouTube | GitHub

- Developed an **AR** basketball game in **Unity** where players place a basketball hoop on a plane surface and throw the ball towards the hoop.
- Implemented mechanics to track the number of goals needed to win before the number of attempts runs out, all within a time limit.
- Designed intuitive controls and realistic **physics** to enhance player experience.
- Created interactive **UI** elements that pop up and trigger sounds when a goal is made or missed.
- Added functionality for players to **leave** the game or **restart** it at any time.
- Utilized **Unity's AR** Foundation to detect **plane surfaces** and place the basketball hoop accurately.

Try Hard (Multiplayer Game) YouTube | GitHub

- Developed a multiplayer game allowing multiple players to engage simultaneously, featuring a team management system for cooperative play.
- Utilized **Photon PUN 2** extension for Unity to facilitate seamless multiplayer networking, enabling real-time communication and synchronization between players.
- Designed and implemented custom game mechanics tailored to multiplayer **interactions**, including **synchronized timers**, team-based **scoring** and **leaderboard** functionality.
- Implemented a scalable network architecture to support a growing player base and accommodate varying levels of multiplayer activity, ensuring stability and performance.
- Ensured cross-platform compatibility and reliable player communication with **Photon PUN 2's** chat system.

Safety First (Endless Car Moving Game) YouTube | GitHub

- Developed an endless car moving game with dynamic left-right path changes using Unity, featuring a complete and functional UI.
- Implemented username entry restriction to ensure each player can only enter their name once per device.
- Incorporated score and high score functionality using **PlayerPrefs** for data storage.
- Enhanced gameplay with multiple types of **ads** including banners, interstitials and rewarded ads.
- Established a **scoreboard** system connected to a server for tracking and displaying player scores.
- Ensured seamless player experience across different mobile devices.

EDUCATION

Unity Game Development **2023 – Present**
Brototype, Trivandrum

Higher Secondary (Commerce) **2021 – 2023**
G.H.S.S. Kilimanoor, Trivandrum