Abin Aiyappa M V

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Projects:

Drone Shooter (3D | Unreal Engine 5)

- Developed a multi-stage 3D drone shooter using Unreal Engine 5 Blueprints, featuring enemy wave spawning and a final boss fight.
- Implemented enemy AI behaviour, projectile systems, health/damage logic, and VFX using Niagara.
- Configured collision systems, hit detection, and gameplay feedback for combat interactions.

Tech: Blueprints, Niagara, AI Logic, Collision System, Enhanced Input.

2D Dungeon Crawler (Paper2D | Unreal Engine 5)

- Built a 2D side-scrolling dungeon crawler using Paper2D and Paper ZD with animated sprites and tile-based levels.
- Designed enemy AI using Behaviour Trees, Blackboards, Decorators, and Services.
- Implemented melee combat, attack animations, damage handling, and visual feedback.

Tech: Blueprints, Paper2D, Paper ZD, Behaviour Trees, Sprite Animation.

Jetpack Explorer & Chaos Vehicle System (3D | Unreal Engine 5)

- Developed a third-person character system with running, jumping, and flying (jetpack) mechanics using Blueprints.
- Implemented fuel resource management, pickups, and UMG UI for fuel display.
- Rigged and integrated a Chaos Vehicle, enabling enter/exit mechanics, vehicle possession, and physics-based driving.
- Used Animation Blueprints, Blend Spaces, and Skeletal Mesh Sockets for smooth transitions and VFX attachment.

Tech: Blueprints, Character Movement, Chaos Vehicles, UMG, Animation Blueprints, Enhanced Input.

Rocket Booster (Unity 2D Game)

- Developed a physics-based 2D mini-game in Unity where players navigate a rocket to safely land while avoiding obstacles.
- Implemented Rigid body-based movement with thrust and rotation controls for precise maneuverability.
- Designed and optimized collision handling to differentiate between successful landings and crashes.
- Created particle effects and audio cues to enhance the gaming experience.

Tech: C#, Rigid Body, Collision Handling.

V.I.S.E (Adaptive AI Home Invasion Game)

- Developed an AI-driven game using Meta Reinforcement Learning and Continual Learning.
- Trained an NPC using Unity ML-Agents and Proximal Policy Optimization (PPO) to adapt to player strategies in real-time.
- Implemented Curriculum Learning to gradually increase difficulty as the AI learned from player behaviour.

Tech: C#, Python, ML-Agents, Blender.

TECHNICAL SKILLS

- Unreal Engine 5 (Blueprint Visual Scripting, Gameplay Systems, AI, UI)
- Unity 3D (C#, Reinforcement Learning, ML-Agents)
- 3D Modelling & Animation: Blender 3D

CERTIFICATIONS

1. Unreal Engine 5 Blueprints The Ultimate Developer Course | Udemy |
2. Development with Unity | Udemy |

Education

2021-2025 DAYANANDA SAGAR UNIVERSITY Bengaluru
B-tech in Computer Science - Artificial Intelligence and Machine Learning
CGPA – 7.37

EXPERIENCE

ARTECO Design Engineering Internship (3 Months)

- Developed and maintained frontend web applications using React.js, following a component-based architecture.
- Built responsive and reusable UI components using HTML5, CSS3, JavaScript (ES6+), and react.
- Converted UI/UX designs and wireframes into functional, pixel-accurate web interfaces.
- Improved website performance, layout consistency, and user experience across devices and screen sizes.

3D Modelling & Technical Art

- Created and optimized 3D assets using Blender for real-time applications, including apparel models for Psychic Minds, a clothing startup.
- Developed game-ready 3D models for Unity projects, ensuring efficient topology, UV mapping, and texture workflows.
- Integrated 3D assets into Unity game pipelines, verifying correct scale, materials, shaders, and performance.

ADDITIONAL INFORMATION

Languages: English, Hindi, Kannada, Malayalam (native), Tamil (intermediate).

Strong problem-solving skills, leadership, and team collaboration.