MEHDI ALI

Unity Developer | Programmer

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Language: English and French.

Summary

Unity Developer with a strong foundation in 3D and a background in science and mechanical engineering. Passionate about designing engaging gameplay and scalable systems. I am good at problem-solving and always eager to learn and evolve as a believer in lifelong learning...

Skills & Abilities

- **Gameplay & Systems Design:** Experienced in designing gameplay mechanics, features, and scalable systems.
- **Programming & Development:** Strong C# OOP skills, game programming patterns, and Unity (intermediate to advanced).
- **Networking & Multiplayer:** Expertise in Photon Fusion & Fish-Networking (Server authoritative - SA logic with client-side prediction - CSP).
- **3D & Art Integration:** Solid understanding of both artistic and technical 3D aspects, including meshes, VFX, and animations.
- **Mathematics & Optimization:** Strong 3D math skills for gameplay mechanics and physics-based systems.
- **Tools & Platforms:** Visual Studio, Git, GitHub, Blender, PlayFab, Jira, Trello, Miro, Davinci Resolve, Adobe Illustrator, Inkscape, Krita.
- **AI & LLM Integration:** Experience in programming and integrating LLMs in Unity for interactive applications.

Relevant Experiences

Unity VR Developer – Greensky Games   **since Jun 2024**
Working on **Anomaly**, a real-time multiplayer VR FPS extraction game, focusing on UI systems, AI behavior, and networking-related tasks.

- UI & Backend: Developed modular UI elements for scalability and reusability, implemented a style-sheet system for easy design iteration, and worked on core systems including Vendor, Character Customization, and HUD. Localized the entire project and resolved various UI-related bugs.
- AI Development: Implemented HTN-based AI behavior using fluid hierarchical task network, improving enemy decision-making based on auditory and visual memory. Developed enemy perception, target acquisition, aggro spread, and state transitions, and applied various AI behavior tweaks and bug fixes.
- Networking: Many of my tasks involved networking-related challenges, including managing PlayFab and ensuring seamless multiplayer gameplay synchronization using Photon Fusion.
- Art Integration: Integrated avatar models and hand poses.
- World & Scene Management: Standardized the open world scene organization for better dev-artist collaboration, enabling area isolation, mesh combination, and art optimization.

Unity VR Developer – Greensky Games   **Dec 2023 - Jun 2024**

Contributed to the development of **SWARM 2**, a VR roguelike arcade shooter, focusing on gameplay refinement, multi-platform support, VFX, and UI.
- Gameplay & Systems: Resolved various feature, visual, weapon, and system bugs; refined some modifiers/perks logic.
- UI & Input Systems: Fixed UI bugs, implemented Tips UI, and managed multi-VR platform input and controller mappings.
- VFX & Art Integration: Integrated visual effects and art assets.

Sole QA – Greensky Games   **Jul 2023 - Dec 2023**

Sole QA tester for **SWARM 2** and **SWARM**, ensuring quality across all game systems and platforms.
- Reviewed developer tasks and created detailed test scenarios to aid debugging.
- Developed a comprehensive test suite covering UI, perks, abilities, weapons, map performance, game modes, tutorial modules, game state, and VR compatibility across platforms, establishing a foundation for future QA teams.

Unity VR Developer – Sketchbox   **Dec 2022 - Jul 2023**

I contributed to developing immersive VR experiences and simulations designed to enhance trainee engagement through gamification. Our projects included government boat inspections and pre-flight aircraft inspections.

Personal Project – Mobile ARPG   **2021-2022**

A Mobile ARPG developed with Unity engine:
- Gameplay programming, UI, and other systems.
- Programming the networking (SA & CSP using Fish-Networking solution)
- Player and enemies' logic based on state machine pattern.
- Art and VFX integration.

Also, the making of game-ready assets (characters, weapons, enemies, environment, animations, and VFX)

3D Generalist on Upwork   **2021-2022**

Design and creation of 3D assets (modeling, sculpting, texturing, and animation) and the development of certain tools to automate and facilitate production.

Education

Self-taught - Unity & C#   **2019-2023**

Self-education in Unity and C# using online resources (YouTube tutorials, Unity documentation, Opensource projects, Discord community forums, and Stack Overflow...), as well as experimenting with personal projects and active participation in developer communities.

Self-taught - 3D computer graphics   **2019-2021**

Self-educated in 3D CG (Animation, Sculpting, Basic Texturing, and Hard Surface modeling) using YouTube tutorials, open-source projects, and Discord community forums.

Hydraulic Engineering & Research Master   **2015-2020**

National Higher School for Hydraulics (ENSH) – Blida, Algeria.

Other Experiences

Hydraulic Engineer - SEOR   **2019-2022**

I worked as a hydraulic engineer at Oran Water and Sanitation Company.

Graphic Designer - freelancer   **2018-2020**

I worked as a local freelancer graphic designer.