

Dhiaeddine Mokaddem

Gameplay Programmer

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 Tunis, Tunisia

 [Personal Website](#)

Gameplay programmer experienced with Unity, Unreal Engine, VR, multiplayer, AI, tools, and optimization. Contributed to the release and post-launch support of [Space Gate](#)  , a commercial VR title in Early Access on the Meta Quest Store. Builds modular gameplay, networking, NPC, editor, save, and runtime systems.

Technical Skills

Languages C#, C++, C, Blueprints, GML	Engines Unity, Unreal Engine 5, GameMaker
Gameplay and AI Behavior trees, state machines, custom perception, enemy AI, interaction systems, object pooling, save systems	Multiplayer Netcode for GameObjects, Unity Lobby and Relay, Mirror, network synchronization
XR and Tools VR, AR, XR Interaction Toolkit, Auto Hand, PuppetMaster, Unity Profiler, Meta Quest Developer Hub, OVR Metrics Tool, Git, Diversion	Backend ASP.NET Core, Express, PostgreSQL, Supabase, SQL Server

Professional Experience

Dec 2025 - May 2026	Full-Stack and Unreal Engine Developer ESPRIT Final-Year Engineering Project, solo developer UE5, React, Express, AI - Independently developed an <u>AI-powered admission interview platform</u> combining a MetaHuman avatar, React interface, Express backend, and local LLM evaluation. - Integrated <u>speech recognition, text-to-speech, OSC, NVIDIA Audio2Face, and Pixel Streaming</u> for interviews, reports, scores, feedback, transcripts, and recordings.
Jun 2025 - Jan 2026	Unity VR Developer K&K Studio Internship followed by paid contract Unity 6, C#, Meta Quest - Contributed to the <u>release, Meta certification, and post-launch support of Space Gate</u>  in a three-person team. - Designed a <u>procedural NPC system</u> controlling appearance, identity information, carried items, luggage contents, and configurable contraband probabilities. - Developed <u>active-ragdoll reactions</u> with PuppetMaster, allowing NPCs to react to physical interactions, fall, and recover autonomously. - Built an <u>AES-encrypted offline save system</u> with multiple profiles for progression, currency, and unlocked tools. - Created reusable <u>object pools</u> for NPCs, projectiles, and spacecraft; implemented joystick targeting and aim assistance. - Used Unity Profiler, Meta Quest Developer Hub, and OVR Metrics Tool to help raise performance <u>from below 30 FPS toward a stable 60 FPS target</u>.
Jul 2024 - Aug 2024	Software Developer Intern EDI International Solo project Blazor Server, EF Core, SQL Server Independently developed a project-management application with authentication, role-based access, project and task tracking, deadlines, assignments, and progress monitoring.
Feb 2023 - May 2023	Unreal Engine Developer Lanterns Studios Sole programmer in a two-person team Unreal Engine 5, Blueprints - Developed <u>Heavenly Fury: The Fall of Ashmedai</u>  , integrating gameplay, environment art, character assets, and animation into a public build. - Built a <u>context-aware third-person camera</u> with encounter-specific positioning and configurable axis following. - Implemented <u>custom visual and sound perception</u> with vision-cone raycasts and event-driven patrol, pursuit, investigation, and recovery states. - Designed reusable interaction architecture and distinct <u>stealth and first-person combat</u> sections.

Jun 2022 – Aug 2022	Unity Developer Intern Stolen Pad Studio Sole developer in a two-person team Unity, C#, Editor tooling • Built a Unity Editor toolset with <u>custom inspectors, editor windows, gizmos, and ScriptableObjects</u>, enabling designers to create levels independently. • Produced <u>30+ reusable chunks and 10+ levels</u> while enforcing placement rules that prevented common design errors. • Implemented player-position-based streaming and object pooling; profiled frame rate, draw calls, and visible polygon counts.
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Selected Projects	
Oct 2025 – Nov 2025	Overdrive Arena Playable build and trailer Unreal Engine 5, Blueprints • Built reusable object pools for projectiles, bombs, dropped loot, and enemies in a five-person team. • Implemented inheritance-based normal and area-of-effect damage, loot, inventory, weapon persistence, world-space UI scaling, and the win condition. • Provided Unreal Engine support and integration guidance across the team.
Jan 2025 – May 2025	Reclaimed Playable build and trailer Unity, Netcode for GameObjects, ASP.NET Core, Supabase • Developed <u>character customization, multiple enemy types with AI</u>, and a modular construction system for floors, walls, windows, and interactive doors. • Implemented <u>Lobby and Relay</u>, including synchronization of enemies and player-placed structures. • Established the initial <u>ASP.NET Core and Supabase architecture</u>, persisting player appearance, location, constructed objects, planted items, and world state.
Jan 2025 – Feb 2025	Lost in Desolation Browser and Windows builds Unity • Developed <u>pointer-driven airflow physics</u>: mouse input generates a force that pushes a fragile bubble away from the cursor. • Implemented obstacle collisions, windy areas, bubble failure conditions, and physics tuning for buoyancy and air drift. • Integrated animations and <u>Tilemap</u> assets in a four-person team; won <u>3rd place at Global Game Jam Tunisia 2025</u>.
Oct 2024 – Dec 2024	CarniVRal PC VR and Quest builds Unity, XR Interaction Toolkit • Developed the basketball minigame and an <u>ID-based architecture</u> supporting three VR minigames in a four-person team. • Associated scores and saved data with each ID, allowing new minigames to be registered without modifying the central manager. • Built persistent leaderboards, player-name storage, in-game currency, and a <u>timestamp-based daily reward system</u>; tested on Meta Quest 2.

Education	
2023 – 2026 Tunisia	National Engineering Degree in Computer Engineering ESPRIT, Tunisia Graduated Jul 2026 • Ranked first in class during the 2023–2024 academic year.
2020 – 2023 Tunisia	National Applied Bachelor's Degree in Video Game Development ISAMM, Tunisia Ranked first across ISAMM in 2022–2023 and first in the Game Development specialization in 2021–2022.

Achievements	
<u>Six podium finishes</u> , including <u>three first-place awards</u> : Global Game Jam Tunisia 2026 (Veiler), CSJAM 2025 (Catenation), and ISAMM InnovProject 2.0 (Heavenly Fury). Also placed 2nd at Global Game Jam Tunisia 2024 and 3rd in 2025 and 2022.	

Languages		
Arabic Native	English Fluent	French Professional working proficiency