

Sina Rahmani

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[Portfolio](#) | [LinkedIn](#) | [GitHub](#) | [WhatsApp](#) | [Telegram](#)

SUMMARY

Game engine and graphics engineer with 4+ years of Unity/C# experience. Skilled in modern graphics programming across multiple APIs and Windows development. Currently advancing expertise in rendering, engine architecture, and cross-platform graphics software, while continuing to grow Unity skills and learn Unreal Engine 5.

KEY SKILLS

Programming: C++, C#, Typescript, Java, Python

Graphics & Rendering: DirectX 12, Vulkan, OpenGL, WebGPU, HLSL, GLSL, rasterization/ray

tracing/compute/mesh pipelines, Nsight, DXC

Web & Networking: Node.js, React, ASP.NET, PostgreSQL, EF Core, TailwindCSS

IDE: Visual Studio, VS Code

Unity: Physics, UI Toolkit, UGUI, Editor Scripting, Gameplay, CLI, Animation, Addressables, URP, Network tools

Unreal Engine: Blueprints, Animation, IK, Gameplay

Software Development: Qt, WPF, Win32, WinForms

Source Control & Collaboration: Git, GitHub Copilot, Claude

PROJECTS

NebulaFX – (Personal Project)

- Built a browser-based particle simulation using **WebGPU** and **React**
- Built a GPU-driven compute + instanced rendering pipeline for high-particle performance

Luxon Engine – (Originally part of final MSc Project, then Personal Game Engine Project)

- Developed a custom game engine from scratch using **C++**, **DirectX 12**, **Vulkan**, **Win32** and **Qt**
- Implemented the renderer to support **rasterization**, **ray tracing**, **compute**, **mesh** pipelines
- Created a macro-driven HLSL cross-compiler for DirectX 12 and Vulkan using **DXC**

Route – (Coursework project for the university's Computer Graphics module)

- Built a simple 3D game prototype in C++, **OpenGL**, and **Win32**
- Implemented a rain effect using a basic particle system with instanced rendering

Happiness Planet – (Happy Galaxy Studio)

- Developed a 2D educational Android game using **Unity** + **C#**
- Implemented live-ops minigames delivered via Unity's **Asset Bundle**
- Built internal tools to simplify game-data creation and content design

FunBoardGames – (Personal Project)

- Developed a 2D online multiplayer game using **Unity** (client), ASP.NET **SignalR** (backend)
- Implemented matchmaking, login, and gameplay systems for two board-game modes
- Used **EF Core** and **PostgreSQL** for database management

Lantern – (Fotros Studio)

- Created a 2D puzzle game using the **Unity** engine

WORK EXPERIENCE

Karizma Studio

Senior Unity Developer – Full-time

Sep 2022 – Sep 2024

- Reduced Yatzy build size by ~20 MB by removing duplicate assets using Unity's Build Report tool.
- Improved Yatzy startup by lazy-loading live-ops assets, reducing load time by ~10 seconds.
- Developed reusable Unity packages (e.g., popup management) adopted across multiple projects.
- Served as Technical Manager for Yatzy, overseeing gameplay development and technical decisions.
- Contributed to development of the 'Farkle' mobile game, implementing IAP and analytics using **Unity**.
- Integrated Scriptable object-based design pattern for replacing singletons, resulting in more event-driven architecture and reduced dependencies.

Happy Galaxy Studio

Unity Developer – Remote

Jan 2022 – Apr 2022

- Developed the Happiness Planet educational mobile game for Android using **Unity**
- Contributed to additional educational mobile games for Android, focusing on gameplay and UI implementation using **Unity**
- Wrote custom shaders for the Studio's game, giving visuals such as outline, smooth transition between 2D textures and environment

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| Inotek | Unity Developer – Part-time | Feb 2021 – July 2021 |
| <ul style="list-style-type: none">• Implemented required feature changes for the ‘Scoop’ mobile game using Unity• Built publishable Android and iOS releases for ‘Scoop’, including debugging and deployment preparation | | |
| Fotros | Unity Developer – Contract | Aug 2019 – May 2020 |
| <ul style="list-style-type: none">• Developed the Lantern game for Android and Windows using Unity• Built the Popcorn mobile game for Android, implementing gameplay and UI systems | | |

EDUCATION

MSc in Computer Games Technology **City St Georges, University of London, London, UK**

Sep 2024 – Nov 2025

- Key modules: Advanced Game Technology, OOP in C++, Game Development Process, Computer Graphics, Computer Games Architecture

BEng Electrical Engineering **Sharif University of Technology, Tehran, Iran**

Oct 2011 – Sep 2017

- Key modules: Programming in C++, Logic Circuits, Signals and Systems, DSP, Linear Algebra