

Alexandros Kougentakos

Game A.I. & Engine Developer

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Summary

Passionate Game Developer specializing in Gameplay & AI Programming with a keen interest in engine development. I have experience working with multiple programming languages, game engines, and tools to build immersive gaming experiences. Always enthusiastic about exploring new challenges in game development, whether they involve gameplay, AI, or technical systems.

Education

Bachelor of Science in Game Development

Howest DAE, Belgium 2021 - 2025

- Specialized in Gameplay Programming, AI, and Engine Development

Skills

Programming Languages: C++, C#, GLSL, HLSL

Game Engines: Unreal Engine 5, Custom Engines (Vulkan, SDL2)

Technologies & Tools: Steam Networking, DirectX 11, Vulkan, Nvidia PhysX, ImGui, WebAssembly, XAML, Model-view-viewmodel (MVVM)

Areas of Expertise: Gameplay & AI Programming, Engine Development, Networking

Projects

Unnamed Multiplayer Shooter – 2024

Technologies: C++, Unreal Engine 5, Steam Networking

Developed multiplayer replication systems for a first-person shooter using the Unreal Engine steam multiplayer subsystem.

Iliad - Vulkan Game Engine – 2024

Technologies: C++, Vulkan, GLSL, CMake

Developing a custom game engine using Vulkan, focused on the Entity Component System (ECS) and employing a scene workflow.

Tidal Treasure Clash – 2023-2024

Technologies: C++, Unreal Engine 5

Designed core gameplay mechanics for a local couch PvP game as a member of a team consisting of four other people.

Card Game with Custom Engine – 2024

Technologies: C++, SDL2, WebAssembly

Built a custom 2D engine to power a card game that runs both natively and in the browser, utilizing Emscripten in order to compile to WebAssembly.

Bomberman Blast (Remake) – 2023

Technologies: C++, DirectX 11, Nvidia PhysX, ImGui

Recreated the classic Bomberman experience with using the original 3D models, using an in-house engine.

Valorant Agent Tool – 2023

Technologies: C#, XAML, Valorant-API

Developed a tool to display the agent information of all the Valorant agents with an offline data loading fallback option that reads the data from an embedded json file.

Hardware/Software Rasterizer & Software Raytracer – 2022

Technologies: C++, DirectX11, SDL2

Implemented low-level rasterization and raytracing algorithms for deeper understanding of graphics pipelines.

Procedural Dungeon Generator – 2022

Technologies: C++, SDL2

Created a dungeon generation algorithm for dynamic level creation.

About Me

I'm passionate about building memorable gaming experiences. From early childhood, games have inspired my curiosity about how they are made. This passion drove me to learn about both gameplay and technical systems, allowing me to build my own engines and games. I'm excited about the future of gaming and am always looking for opportunities to innovate and contribute to interesting projects.