Mohamed Gadalla

Game Programmer, C++ Developer

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An accomplished Game Programmer with expertise in C++, C#, and low-level systems programming. Delivered over 20 cross-platform projects, demonstrating proficiency in engine development, tools programming, and graphics optimization. Strong problem-solving and time management skills, with a focus on building efficient, scalable solutions. Proficient in Unity, Godot, OpenGL, and Direct3D11, with a passion for high-performance systems and exceeding client expectations.

WORK EXPERIENCE

Freelance · 06/2022 - Present
Game Programmer

- Delivered 20+ projects for diverse clients, including game prototypes, custom tools, and optimization tasks.
- Implemented and integrated complex systems such as audio, physics, and networking, meeting client specifications and deadlines.
- Developed scalable solutions for cross-platform deployment, ensuring compatibility and performance on Windows and Linux systems, such as optimizing the Nikol engine to achieve consistent 60+ FPS on mid-range hardware during intensive rendering tasks.
- Collaborated with international clients, demonstrating strong communication and remote work management skills.

PROJECTS

Nikol (Custom Game Engine)

Developed a modular game engine supporting Direct3D11 and OpenGL for real-time rendering. Designed a cross-platform architecture targeting Windows and Linux systems. Focused on performance optimizations such as instancing, frustum culling, and efficient memory management.

Ymir (C++ Project Generator)

Built a project generator for Linux, featuring both CLI and GUI applications using C++ and ImGui. Streamlined project setup processes, reducing development time by 50%.

Ishtar (C++ Tools Suite)

Created a single-file suite of C++ tools, including dynamic arrays, hash tables, and strings. Focused on memory efficiency and fast lookup times for game development use cases.

Socrates (Game Math Library)

Developed a lightweight math library for C++ with optimized vector and matrix operations. Designed for efficiency and ease of integration into game engines.

SKILLS

- Audio systems
- C#
- C++
- CMake
- Direct3D11
- Engine development
- Git
- Godot
- Graphics optimization
- Low-level systems programming
- OpenGL
- Physics systems
- Tools programming
- UI/UX design
- Unity
- Visual Studio