Alexandru Sana

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· **Portfolio**: https://a-lex.dev · **LinkedIn**: /in/aosana · **GitHub**: https://github.com/alexstn18

ABOUT

Engine/Tools and Graphics programmer that is interested in porting games to different platforms. Reverse-engineering games, seeing nice results on the screen through code and developing tools to help other developers in a team environment really gets me going. I mainly use C++ and DirectX12, although I am always more open to learn about new tool-sets and technologies to utilize. Curiosity, style and most importantly populated and productive environments are what keep me engaged as a developer.

KEY COMPETENCIES AND SKILLS

Programming Languages: C/C++, Rust, Python, GLSL/HLSL
APIs: DirectX 11/12, OpenGL
Tools: Visual Studio 22/26, Rider, Vim, CMake, (ECS) EnTT, Git, Perforce, Unreal Engine, Godot Engine
Debugging: Memory and CPU Profiling, Reverse-engineering, cross-platform development
Scrum/Agile, Teamwork, Time Management, Problem-Solving, Critical Thinking
Languages: Romanian (native), Hungarian (native), English (professional working proficiency), German (limited working proficiency)

PROJECTS

Nakon - FPS Custom Engine (Year 2)   Feb 2025 - Jun 2025
Was the Top 2 contributor to the project in terms of lines of code and commits in a team of 9 programmers.
Implemented a Scene Manager based on Unity Engine's model, used throughout the project.
Created custom tools tailored specifically for FPS-needs for the 3 artists that we were hosting in our team.
Programmed and designed all of the UI for the game.

Voxel Ray-Tracer on the CPU (Year 1)   Feb 2024 - Apr 2024
Learned and implemented based on lectures, articles and research papers: Monte-Carlo numerical integration, Multi-sampled Anti-aliasing, Depth of Field, Materials (metallic, non-metallic and dielectric), Fish-Eye Lens Effect, Smoke Rendering,
Additionally, I was introduced to memory and CPU profiling while developing this project.

DirectX12 Renderer (Self-Study)   Nov 2025 - Present
Implemented a DirectX 12 rendering pipeline from scratch, including command lists, swap chain management, descriptor heaps, and CPU–GPU synchronization.
This project is my first introduction to low-level Graphics Programming.

EDUCATION & CERTIFICATIONS

Bachelor of Science
Creative Media & Game Technologies, Programming (2023-2027) @ Breda University of Applied Sciences, Breda, Netherlands

Mathematics & Computer Science School Diploma (2011-2023) @ German Theoretical Highschool "Friedrich Schiller" Oradea, Romania

Cambridge Advanced English (C1 Level)

Deutsches Sprachdiplom (B1 Level)

EXTRACURRICULAR ACTIVITIES

BUas Portfolio Day 2026
Volunteered with setting up Portfolio Day at the Breda University of Applied Sciences.

Global Game Jam 2026
Participated in the Global Game Jam'26 held at the Breda University jam-site together with 9 peers to build a game in 48 hours.