ANDER F. LAFUENTE

GRAPHICS PROGRAMMER

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ABOUT MYSELF

Specialized in applying mathematics, physics, and programming knowledge to multiple frameworks, specifically graphic ones.
Open to relocation within Europe or remote opportunities.

SKILLS

PROGRAMMING:
C and C++
GLSL
x86asm
Simd
TCP/IP protocols

ENGINES:
Unreal Engine 5
Custom 2D/3D (C++)
Unity

SOFTWARE:
OpenGL
RenderDoc
Visual Studio
Perforce
Git
Maya
LaTeX
Word

PROGRAMMING SPECIALIZATIONS:
Rasterization
Raytracing
OpenGL API
Graphics pipelines
Netwoking

LANGUAGES:
Spanish - Native
English - Full Professional Proficiency
Basque - Native/B2

ACADEMIC PROJECTS

NUMBRA - 3D PUZZLE ENVIRONMENTAL EXPERIENCE

Senior 3D Game Project | 5 Programmers & 7 Artists | UE5

- Established a complex camera system to enhance player navigation and capture artistic frames or screenshots.
- Implemented Menus and HUD interactions to ensure smooth transitions between menus.
- Designed and programmed environmental events to create immersive and interactive user experience for the players.

CHAOS FOR SALE - 3D COOP MANAGEMENT GAME

Junior 3D Game Project | 6 Programmers | C++

- Designed and set up levels to create balanced and engaging game flow.
- Implemented font rendering for clear and interactive UI text.
- Programmed several gameplay features and a spawn system to manage dynamic in-game entities.

VIRTUAL MAYHEM - 2D FIGHTING GAME

Sophomore 2D Game Project | 4 Programmers & 9 Artists | C++

- Programmed Menus and HUD interactions from scracth.
- Implemented font rendering for clear and dynamic text display.
- Developed a language system to support multi-language gameplay.
- Worked on the framework workflow, handling from rendering and graphics pipeline to menus and in-game logic.

RAY CASTING FOR CONSTRUCTIVE SOLID GEOMETRY

Solo Project | C++ | SFML API

- Constructed a ray tracing framework to generate CSGs with reflections and refractions.
- Developed acceleration structures and implemented KD trees to optimize performance in complex, high-density scenes.

RADIANCE CASCADES GLOBAL ILLUMINATION

Solo Project | C++ | OPENGL API

- Programmed radiance cascades to simulate global illumination in a 2D graphics pipeline developed entirely from scratch.

EDUCATIONAL HISTORY

DIGIPEN INSTITUTE OF TECHNOLOGY EUROPE-BILBAO (2021-2025)

Bachelor of Science in Computer Science in Real-Time Interactive Simulation

Relevant Coursework: Advanced C/C++, Advanced Real-Time Rendering Techniques (OpenGL), Game Design & Production, AI, Game Engine Architecture and Computer Networks.