

# MIKEL SERTUTXA

## CONTACT:

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## SKILLS:

C/C++

C#

OpenGL

JSON

GIT

GLSL

## SOFTWARE:

Visual Studio

Unreal Engine

Unity

3DS MAX

## LANGUAGE:

Basque (Mother tongue)

Spanish (Mother tongue)

English (Fluent)

## ACCOMPLISHMENTS:

Gamelab Barcelona 2019

Finalist Best Student Video Game

Fun & Serious Game Festival 2019

Finalist Best Basque Game

Ludicrous Game Festival 2020

Emerging Talent Award Nomination

To use my 4 years of experience creating games, where my programming skills and understanding on games are proven, as a Game Programmer.

## GAME PROJECTS:

**Mirlo Above the Sun** (Senior Game Project, 2020-2021): 3D Top-Down Action Game with Unreal Engine.

- As the lead designer of the project, I supervised the levels and mechanics implementation as well as documented the design on a GDD.
- Designed and built the second level and its mechanics.
- Implementation of a complex camera system with different behaviors and transitions.
- Designed and implemented the final boss battle.

**80s' Sunshine** (Personal Game Project, 2020-2021): 3D Auto Runner Game from scratch using C++

- The game is done entirely on my own except of the music.
- Built an object oriented engine.

**Toytank** (Junior Game Project 2019-2020): 3D Platformer Action Game from scratch using C++

- Implementation of the final player controller and mine mechanic.
- Designed and built entirely 2 levels as well as their unique mechanics.
- Built a 3D graphics system using OpenGL and all the effects used in game.
- Designed and implemented the final boss of the title.

**Skywolf** (Sophomore Game Project, 2018-2019): 2D Platformer Action Game from scratch using C++

- Rework of the Player code and improved its game feel.
- Implementation of the kamikaze and archer enemies.
- Created a 2D Path animation tool for enemies and the final boss with an editor using ImGui.
- Built a 2D graphics system using OpenGL and all the effects used in game.
- Implemented the final boss of the game.

## EDUCATION:

B.S. in Computer Science in Real-Time Interaction Simulation at Digipen Institute of Technology Bilbao (2017-2021).

## Relevant Coursework:

- Advanced C/C++
- Game AI: Behavior trees, State Machines, Flocking
- Advanced Graphics Techniques with OpenGL: Realistic Water Rendering, Ambient Occlusion, Deferred Shading, Tessellation
- Raytracing: Deterministic 3D Fractals, Global Illumination, Raytracer and Raymarcher
- Game Design

## PERSONAL PROGRAMMING PROJECTS:

**Deterministic 3D Fractals:** Offline Raymarcher for Julia sets and geometric fractals.

**Render Water as A Post-Process Effect:** Real time realistic water with optics and foam, rendered as a Post-Process effect on a deferred renderer.

**Space Partitioning Framework:** Framework with GJK, Octrees, KD Trees and Bounding Volumes.