# SIMONE TREVISAN

### GAME PROGRAMMER



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personal site





😱 g<u>ithub</u>



itch.io

## **Profile**

I'm a Game Programmer with a strong Software Engineering work background and I'm specializing in Gameplay Development. I have broad knowledge of various programming languages and related tools, but I'm focused on improving my knowledge of C++ and Unreal Engine. My journey is driven by curiosity and continuous learning, from refining gameplay mechanics to building powerful tools to improve the development cycle. I approach problems with precision and analytical thinking, always striving for clean, performant code. I'm inspired by people who work with passion on their job and put all of themselves into reaching the best quality possible for their products.

### Skills

- Strong C++ PL and others
- Unreal / Unity Game Development
- OpenGL / DirectX 11 API
- Math, Physics and Geometry
- Iteration over early polishing
- CI/CD, TDD, ECS, PP, Refactoring
- Team Worker

## <u>Interests</u>

- Develop Games and Game Jams
- RTS and TBS Games
- Gdr D&D-style, TableTop Games
- Worlds Creation
- Reading Books
- Hardware/Software Technology
- Sports and Cooking

## **GameDev Personal Projects**

### **Unreal Platform Game**

A complete 3D platformer level in Unreal Engine featuring custom character movement, Al-driven enemies, boss encounter, resource management, power-up mechanics, and key-based progression with locked areas. Challenge: defeat all enemies while collecting maximum resources in minimal time!

UE5 • C++ • 3D World • Al sensing and NavMesh • Resource Systems • Power UPS • Unlockable Areas • FSM • Animations • Character Movement

### **BB8 Physics Simulation**

Physics-based character controller simulating BB8 droid mechanics in Unreal Engine. Implements spherical rolling with angular velocity, gyroscopic head stabilization system, and custom movement component for realistic droid

UE5 • C++ • Physics Simulation 3D • Applied Forces • Character Movement

Single-level recreation of classic arcade game built in Unity 2D for Android platform. Features dynamic balloon splitting with physics simulation, responsive touch controls, animations, and dynamic UI

Unity • C# • 2D Animations • 2D Physics • Mobile Development • Touch Input Arcade Shooter

### **Arkanoid Clone**

DirectX-based implementation of classic arcade game following Rastertek graphics programming tutorials. Features 2D sprite rendering, collision detection system, entity movement, and game state management

C++ • DirectX 11 • 2D Graphics • Sprite Rendering • Collision Detection

### <u>Memory Manager</u>

Memory manager implementing Alexandrescu's Small Object Allocator pattern with global new/delete override.

C++ • Memory Management • Operator Overloading • Performance Analysis

### FMod Wrapper Library

C++ library wrapper around FMOD API, featuring multi-channel audio playback system and runtime control interface.

C++ • FMOD API • Audio Programming • Resource Management

## **Work Experience**

Software Engineer 2018 - 2025

**Private Teacher for University Students 2012 - 2018** 

## Academic Path

2025 - Master in Computer Game Development - univr

2018 - Master's Degree in Engineering - uniroma2

2012 - Bachelor's Degree in Engineering - uniroma2

## Achievements & Awards

- \* Participation Global Game Jam 2025
- \* 1° place Rome Tor Vergata IBEC (IT Best Engineering Competition) 2012
- \* 2° place Tor Vergata's Soccer Competition (sponsored CampusX) 2011