# Yojhan Steven García Peña

Game developer | Gameplay programmer

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#### Summary

Game developer with experience building and adapting commercial games for PC and consoles. I specialize in gameplay programming and game architecture, with deep knowledge of how game engines work internally. I've developed my own engine from scratch, including a visual scripting system, and contributed to tools and systems that support designers and streamline production. I combine strong technical fundamentals with a focus on clarity, performance, and cross-platform development.

#### **Experience**

#### Blitworks Games ##

July 2022 - March 2025

Gameplay and porting programmer

Remote

- Worked on the adaptation and enhancement of commercial games for PlayStation, Xbox and Nintendo Switch.
- Designed and implemented **gameplay features**, **UI elements**, and in-game systems tailored to each platform.
- Reworked PC-based control schemes to intuitive and responsive gamepad layouts, redesigning gameplay where needed.
- Built **new content** and systems for various games from scratch.
- Refactored codebases, optimized performance, and fixed critical bugs to ensure platform stability.

#### **Projects**

# Bachelor's Thesis ##

**Custom Game Engine** 

**Shy Engine** is a **lightweight game engine** built from scratch in C++, featuring a fully integrated editor and a custom **visual scripting** language inspired by Blueprints. Designed for non-programmers, the engine is structured as a set of **decoupled applications**, requiring a **custom reflection** and **serialization** system to support flexible communication between editor and engine.

### Modular Character Controller 🌐

**Unity Asset** 

2D character controller designed with a fully **modular architecture**, built around the **Mediator design pattern**. Each module is completely **decoupled** and communicates through a centralized mediator, enabling **clean, testable logic** and **easy debugging**. Promotes **reusability** and **maintainability** by isolating behavior into pure, independent functions. The mediator also simplifies the **coordination of states** and interactions between components.

### Game Jams 🌐

# Rapid prototypes and creative experiments

Collection of **small games** developed for **game jams** and **prototyping**, showcasing creativity, rapid iteration, and variety.

#### Skills

### **Engines & Tools**

Unity, Unreal Engine, custom game engines, Phaser, SDL, FMOD, ImGui

#### **Graphics and Rendering**

OpenGL, Shaders, HLSL, node-based material system (Unreal Material Editor, ShaderGraph...)

### **Engine architecture**

Scene management, game loop control, custom serialization and reflection, editor integration, custom scripting

#### Collaboration & Workflow tools

Git, Plastic SCM, agile methodologies (scrum and kanban), Pivotal tracker, Trello. Jira

### **Programming**

C#, C++, JavaScript, Python, Java, Lua, OOP, component-based architecture, knowledgeable in design patterns

### Platforms

Windows, Linux, PS4/PS5, Xbox, Nintendo Switch, Oculus VR, Vuforia AR, Android

#### **Education**

# <u>Video Game Development</u>

Complutense University of Madrid

Specialized focus on game engines, computer graphics, low-level systems, game design, AI, and multi-platform development.

# Fullstack web development @

TheOdinProject

Open-source full-stack web development curriculum focused on HTML, CSS, JavaScript, and React. Covers modern development practices, accessibility, testing, version control, and deployment through hands-on projects.