

# JOSH CASTILLO

## Games Engineer

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## CODING LANGUAGES

C C++ C# Python

## TECHNICAL SKILLS

- Github and Perforce
- GitKraken
- Jira
- VS and VS Code
- Object-Oriented and Functional Programming
- Software Design and Architecture
- Agile development cycle.
- Unity
- Unreal and Blueprints

## SOFT SKILLS

- Team Management
- Collaboration

## ABOUT

Passionate Game Developer with a passion for bringing game ideas into reality. Skilled in Unreal Engine and Unity, with experience in gameplay mechanics, editor scripting, and multiplayer integration using Photon. Proficient in Unreal's C++ and Blueprints, Unity scripting, and incorporating VFX and UI designs to enhance gameplay and user experience. Focused on optimizing workflows and boosting productivity.

## LANGUAGES

Spanish

English

## Education

Graduation June 2025

University of California, Irvine

- B.S. Computer Science
- B.S. Game Design & Interactive Media
- 3.9 GPA

## Work Experience

Jan 2024 - Present

### Coding Minds

- Conducted 100+ personalized coding lessons with 50+ students, enhancing their programming skills and fostering dynamic learning.
- Collaborated with other Coding Coaches to assist in lesson planning and reviewed computer science concepts with students to solve problems.
- Monitored student progress, issued personalized reports to parents, and nurtured critical thinking and perseverance in over 50 students.

## Projects

Sep 2024 - Present

### DawnCore (Work in Progress)

- Created a detailed UML diagram to outline the game's systems, ensuring a clear architectural framework for the team and consistent feature development.
- Designed and implemented a flexible movement system that smoothly transitions between modes and preserves player momentum, applying linear algebra for realistic traversal on slopes and curved walls.
- Collaborated with designers to provide customizable movement mechanics, enabling tailored gameplay experiences.
- Developed a robust health system with support for healing, damage over time, invincibility modes, regeneration, and simple respawning mechanics.
- Created an "AI Director" algorithm for procedurally spawning enemies based on designer-defined metrics, and designed a dynamic pacing algorithm to control emotional intensity through gameplay.

April 2024 - June 2024

### Quickshot

- Collaborated with designers to develop a flexible, responsive UI system supporting dynamic elements like scoreboards, menus, health indicators, and final screens.
- Weapon System Development: Implemented a shooting system with hit-scan and non-hit-scan modes, incorporating a seamless mode-swapping feature and a flexible weapon configuration system for dynamic adjustments of parameters such as damage, fire rate, and swap time.
- Gameplay Systems: Developed a respawn system, a data storage system for player statistics, and a modern lobby system where players could view their characters in real-time.
- Engineered data synchronization systems for critical match data (e.g., health, score, abilities) across clients, created serialization methods for non-default data types over Photon's framework, and developed backend functionality for player matchmaking and lobby systems.
- Collaborated with VFX teams to synchronize weapon and ability effects across the network, ensuring consistent visual fidelity during gameplay.

Sep 2023 - Dec 2023

### Wartorn

- Designed and developed a flexible system enabling writers and designers to easily create and modify dialogue sequences, with full support for Dialogue Trees to enhance player immersion through meaningful choices.
- Worked closely with writers and designers to expose key properties, ensuring the system facilitated compelling story creation and adaptability throughout development.
- Created a typewriter effect for text and implemented smooth fade-in/fade-out animations for text boxes, enhancing the dialogue experience with immersive visuals and improved readability.

## Leadership and Collaboration

June 2025 - Present

### Programming Department Head - Edo Edo Teishoku!

- Directed** a team of **7 programmers** in conceptualizing and executing various game systems.
- Conducted** one-on-one **mentoring** sessions with fellow programmers to ensure their proficiency with the codebase and **addressed** any questions or concerns.
- Conducted both online and in-person meetings, **fostering** an **inclusive environment** for team members to contribute to system design discussions.
- Collaborated closely** with other department heads to stay informed about the game's evolving designs and updates,