JUAN DAVID DIAZ GARCIA

Gameplay programmer with 5 years of experience using the Unity Engine. I've developed and published 5 complete and well-polished games in 2D and 3D. I have strong skills in C#, Java, and Javascript. In addition, I can implement complex mechanics and systems into games and create useful tools for developers and designers.

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WEBSITE
d4vid-dg.itch.io

SKILLS

- Highly skilled in using Unity Engine to create 2D and 3D games.
- Proficient designing and implementing Editor Scripts in Unity to create tools for game designers.
- Familiarity with practices and techniques to create readable, bug-free , decoupled code.
- Skilled using source control applications like Git and GitHub in the command prompt and GUIs (Sourcetree)

RELEVANT PROJECTS

Main Programmer

CHESS

2023 - 2024

Chess game developed in Javascript. I single-handedly created the program architecture, coded the chess rules, tested and debugged the move generation algorithm, and implemented the UI and Input system.

Tools Programmer

SPELL CREATOR

2022

Editor tool created in Unity. This tool allows the developer to create handmade drawings and link them to a script or behavior. These drawings are stored in data that can be recognized by an algorithm that executes the associated script.

Main Programmer and Designer

AFTERLIFE

2021

https://d4vid-dg.itch.io/afterlife

2D platform game. I single-handedly designed and programmed the gameplay, levels, and a creative main mechanic which consists of revealing the path with the blood the player spreads when losing.

Lead 3D Programmer

KITCHEN KHAOS

2021

https://asbutt.itch.io/kitchen-khaos

3D Arcade Game. I developed it in Unity with a team of 5 people for "*Brackeys Game Jam 2021.2*", programming the game loop, dishes' abilities, dishes' spawn system, and a level customizer.

EDUCATION

Mechatronics Engineer

UNIVERSIDAD NACIONAL DE COLOMBIA, BOGOTÁ, COLOMBIA

2018 - 2024

Introduction to Unity for 2D Video Games

DOMESTIKA

2020

- Created a complete 2D platformer using fundamental Unity concepts like Rigidbody, Colliders, Physics, Animation, UI and Tilemaps.

RPG Core Combat Creator: Learn Intermediate Unity C# Coding

UDEMY

2021

- Created core combat mechanics for melee, ranged, and special attacks.
- Applied advanced C# techniques such as interfaces, delegates, and co-routines.
- Created pathfinding systems and patrol paths for enemies and NPCs.

Code Complete: A Practical Handbook of Software Construction

WRITTEN BY STEVE MCCONNELL

- Learned techniques and principles to create clean, high-quality code and practiced them in two game projects.

RELEVANT EXPERIENCE

Tutor of Object-Oriented programming course

UNIVERSIDAD NACIONAL DE COLOMBIA, BOGOTÁ, COLOMBIA

2021-10 - 2021-12

- Conducted sessions with 30 students once a week to explain course topics and solve questions.
- Provided tutoring to reinforce student comprehension and give feedback on their course projects.

Leader of Videogame Student Group

UNIVERSIDAD NACIONAL DE CLOMBIA, BOGOTÁ, COLOMBIA

2023 - PRESENT

- Conducted sessions for brainstorming and design reviews for projects once a week.
- Searched opportunities with the faculty and 2 external institutions for collaboration with the group.
- Posted the activities of the group through social networks.

OTHER ACCOMPLISHMENTS

- Participated in 8 Game Jams as a gameplay programmer, receiving positive comments in two games.
- Programmed a 2-player top-down shooter game in Java about tanks fighting in a maze using the Model-View-Controller design pattern.
- Programmed a Java application for managing college students' schedules using important data structures like HashMaps and trees.
- Programmed microcontrollers like Arduino and PIC to implement PID controllers for motion control of a pendulum and a plastic extrusion machine.
- Programmed a HangMan game on a programmable logic device (FPGA) and a VGA monitor using Verilog programming language.

LANGUAGES

- English
- Spanish