AGUSTIN J. DURAND DIAZ

Phone: +1 7373361699 | Email: aduranddiaz@gmail.com | Austin, Texas

SUMMARY

Experienced and results-driven Senior Software Engineer with over 12 years of expertise in software and game development. Strongly focused on problem-solving and delivering high-quality code that exceeds project objectives. Possessing a passion for C++, computer graphics, and game engines, I have a proven track record of leading teams and contributing significantly to the development of various games using Unreal Engine in my recent jobs. Currently, I am undertaking a side project to develop a game engine from scratch, which has further enhanced my technical abilities and expanded my skill set. I am adept at working with cross-functional teams and have a keen eye for detail to ensure the seamless integration of different components in complex systems.

PROFESSIONAL EXPERIENCE

Expert Gameplay Engineer

Infinity Ward (Activision) | 01/2024 - present

➔ Design, implement, and test gameplay features for Call of Duty.
➔ Technologies & Tools: C++, Visual Studio.

Senior Software Engineer

Arc.Dev | 08/2023 - 01/2024

➔ Client: **HaywireInteractive**.
➔ Designed, implemented, and tested gameplay features (tactics, vehicles, weapons, etc).
➔ Technologies & Tools: Unreal Engine 5 (Mass Entity ECS), C++, Rider.

Lead Programmer

Sparx* - a Virtuos Studio | 06/2023 - 08/2023

➔ Technologies & Tools: Unreal Engine 5 (EOS, GAS, Networking), C++, Perforce, Rider.

Successfully **created documentation** on how to set up **dedicated servers** using **Lyra** as the base project.

Tech Lead

Isoforce Games | 05/2022 - 12/2022

➔ Led the software team, conducting software design sessions to develop technical solutions aligned with project requirements.
➔ Balanced quality and speed, ensuring efficient and effective product development.
➔ Estimated project timelines and coordinated with the team to meet deadlines.
➔ Collaborated with the team to follow and improve Agile processes.
➔ Interviewed, hired, and trained new team members to enhance their skills and knowledge.
➔ Performed code reviews to maintain high and consistent code quality across the team.
➔ Made decisions regarding technologies and tools to enhance productivity and product quality.
➔ Created collaborative relationships with other teams to facilitate communication and coordination.
➔ Communicated project goals and progress effectively to stakeholders.
➔ Designed, implemented, and tested new gameplay features to enhance the overall experience.
➔ Provided hands-on coding solutions and technical leadership to support the team directly.
➔ Provided recommended solutions and technical guidance to teammates, considering the project's overall impact.
➔ Technologies & Tools: Unreal Engine 5 (EOS, GAS, Networking), C++, Perforce, Rider.

Successfully **created a Multiplayer Arena in Unreal Engine 5**, showcasing cutting-edge features, utilizing EOS (Epic Online Services) for networking, Gameplay Ability System (GAS), and Docker for development and deployment and leveraging the power of C++ programming. **The game mode was developed from scratch within a 6-month timeframe**, highlighting our ability to deliver innovative and engaging experiences to players.

Lead Software Engineer

DeadMonkey, Inc | 09/2021 - 05/2022

➔ Led the software team, conducting software design sessions to develop technical solutions aligned with project requirements.

https://github.com/VgTajdd/
https://vgtajdd.github.io/
https://www.linkedin.com/in/agustin-jesus-durand-diaz/

- ➔ Balanced quality and speed, ensuring efficient and effective product development.
- ➔ Estimated project timelines and coordinated with the team to meet deadlines.
- ➔ Interviewed, hired, and trained new team members to enhance their skills and knowledge.
- ➔ Performed code reviews to maintain high and consistent code quality across the team.
- ➔ Made decisions regarding technologies and tools to enhance productivity and product quality.
- ➔ Created collaborative relationships with other teams to facilitate communication and coordination.
- ➔ Designed, implemented, and tested new gameplay features to enhance the overall experience.
- ➔ Provided hands-on coding solutions and technical leadership to support the team directly.
- ➔ Provided recommended solutions and technical guidance to teammates, considering the project's overall impact.

I successfully implemented new features into a top-down military game developed in Unreal Engine 4, effectively addressing critical issues and improving its overall functionality.

Senior Software Engineer (C++/Python)

BairesDev | 04/2021 - 09/2021

- ➔ Client: **Miso Robotics**.
- ➔ Implemented and tested new Flippy features.
- ➔ Technologies & Tools: ROS, C++, Python, and Linux.

Software Designer (C++/Gaming)

Globant | 11/2020 - 04/2021

- ➔ Client: **Warner Bros Games (Mortal Kombat).**
- ➔ Implemented and tested rendering functionality for a UE4 plugin.
- ➔ Designed, implemented, and tested functionality for a crash reporting system.
- ➔ Technologies & Tools: Unreal Engine 4, C++.

Technology Lead

Infosys | 04/2020 - 11/2020

- ➔ Client: **Verizon**.
- ➔ Designed, implemented, and tested mediation apps (backend).
- ➔ Technologies & Tools: C++, Linux, Perl, SQL, Putty, Vim, Git & GitLab.

Software Engineer

Bamtang Games (Cancha) | 01/2016 - 03/2020

- ➔ Client: Transmin.
- ➔ Designed, implemented, and tested many features: 3D visualizer, statistics plots, DXF file loading, PDF report generation, etc.
- ➔ Technologies & Tools: C++, Qt, VTK, Assimp, Graphviz, SQLite, Python, etc.

Game Developer

Bamtang Games | 02/2012 - 01/2016

- ➔ Clients: **Disney, Namco Bandai, etc**.
- ➔ Designed, implemented, and tested gameplay features, UI, and tools in more than 10 successful video games for international clients using these technologies: AS3 (Flash), JavaScript (HTML5), and Haxe (OpenFL).
- ➔ Designed, implemented, and tested the map editor tool and gameplay features for the first video game developed in Peru for PS4 and Xbox: **Power Rangers**.

EDUCATION

National University of Engineering — Bachelor's Degree
- ➔ August 2007 - July 2012, Lima, Peru.
- ➔ **Mechatronics Engineering** (B.S. & Título Profesional)

LANGUAGES

- ➔ Spanish — Native
- ➔ English — Fluent
- ➔ French — Beginner
- ➔ Portuguese — Intermediate

https://github.com/VgTajdd/

https://vgtajdd.github.io/

https://www.linkedin.com/in/agustin-jesus-durand-diaz/

COURSES

➔ **Unreal Multiplayer Master: Video Game Dev In C++ Course** | GameDev.tv | 2022
➔ **C++ Design Patterns: Behavioral** | LinkedIn Learning | 2021
➔ **SOLID** | Acámica & Udemy | 2021
➔ **Unreal Engine Blueprint Game Developer Online Course** | GameDev.tv | 2021
➔ **Converting Blueprint to C++** | Epic Games | 2020
➔ **An In-Depth Look at Real-Time Rendering** | Epic Games | 2020
➔ **C++ Best Practices for Developers** | LinkedIn Learning | 2020
➔ **C++ Advanced Topics** | LinkedIn Learning | 2020
➔ More certifications on LinkedIn.

TECHNICAL SKILLS

➔ Software design experience
➔ Game Engines & Games Architecture knowledge
➔ Game Engine Architecture knowledge
➔ Problem-solving

SOFT SKILLS

➔ Leadership experience
➔ Planning and task estimation
➔ Agile development (Scrum)
➔ Communication between multidisciplinary teams

TECHNOLOGIES

➔ Languages: C++|C|Python|SQL|JavaScript|Perl|C#|AS3|Haxe|GLSL
➔ APIs & Libraries: Qt5|VTK|Assimp|Qwt|Graphviz|OpenGL (GLFW, GLEW, GLAD)|FMOD|OpenFL|OpenCV
➔ Tools: Visual Studio|VS Code|Rider|Tortoise (Git & SVN)|CMake|Vim|Xampp
➔ Version Control: Git|GitHub|GitLab|Subversion (SVN)
➔ SO: Windows|Linux|macOS
➔ **Gaming**: UE4 & UE5, GAS, PlayFab, EOS, GameLift, Perforce
➔ Other Tools: Jira, Confluence, Trello, ClickUp, Fibery

SIDE PROJECTS

➔ Univer Game Engine (private repository): Game engine written in C++ using OpenGL(GLFW), FMOD, ImGui, GLM, etc.
➔ Plugin Manager: Cross-platform plugin manager developed in C++.
➔ Dependency Injection Container: Cross-platform dependency injection container developed in C++.
➔ Jumping Jack: First game created with my game Engine (Univer) in only 1 week.
➔ Simple Raytracer: Simple raytracer developed using pure C++.
➔ SpriteSheet Generator: Bin Packing algorithm (recursion & binary trees) using C++ & Qt.
➔ NeuroEvolver: Neuroevolution software written in Python.
➔ Chess Engine: Chess engine written in C++.
➔ Cubeland: 3D Game developed in Unity.
➔ Rubik's Cube Simulator: Simulation of Rubik's Cube written in Haxe.
➔ Interview Problems: Interview problems solved in C++.

COLLEGE PROJECTS

➔ Fruits-vegetables classifier: Implemented in C++ using OpenCV (Digital image processing).
➔ Robotic arm: Implemented using PIC16F877A and servo motors. Controlled by a computer program developed in C#.
➔ PID tuning using Genetic Algorithms: Implemented in C++, this program generates values for a PID controller using GA.

https://github.com/VgTajdd/
https://vgtajdd.github.io/
https://www.linkedin.com/in/agustin-jesus-durand-diaz/