# AGUSTIN JESUS DURAND DIAZ

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# # SUMMARY

Experienced and results-driven Senior Software Engineer with over 10 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

#### Tech Lead

Isoforce Games | 05/2022 - Present

- → Lead the software team (gameplay): software design and code reviews.
- → Design, implement, and test new gameplay features for a very important MVP.
- → Technologies & Tools: Unreal Engine 5 (EOS, GAS, Networking), C++, Perforce, Rider.

# Lead Software Engineer

DeadMonkey, Inc | 09/2021 - 05/2022

- → Lead the software team: software design and management.
- → Design, implement, and test new gameplay features.
- → Technologies & Tools: Unreal Engine 4, C++, Rider.

# Senior Software Engineer

BairesDev | 04/2021 - 09/2021

- → Client: Miso Robotics.
- → Senior C++/Python Engineer in a project related to robotics.
- → Implemented and tested new Flippy features.
- → Technologies & Tools: ROS, C++, Python, and Linux.

#### Senior L2 C++ Developer (Software Designer)

Globant | 11/2020 - 04/2021

- → Client: Warner Bros Games (Unannounced Project).
- → 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.



https://github.com/VgTajdd/





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

# 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

Universidad Nacional de Ingeniería — Bachelor's Degree

- → August 2007 July 2012, Lima, Peru.
- → Mechatronics Engineering (B.S. & Título Profesional)

# # LANGUAGES

- → Spanish Native
- → English Fluent
- → French Beginner
- → Portuguese Intermediate

# # 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



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https://vgtajdd.github.io/



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#### **# SOFT SKILLS**

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

#### # TECHNOLOGIES

- ightarrow 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.
- → <u>Plugin Manager</u>: Cross-platform plugin manager developed in C++.
- → <u>Dependency Injection Container</u>: Cross-platform dependency injection container developed in C++.
- → <u>Jumping Jack</u>: First game created with my game Engine (Univer) in only 1 week.
- → Simple Raytracer: Simple raytracer developed using pure C++.
- → <u>SpriteSheet Generator</u>: Bin Packing algorithm (recursion & binary trees) using C++ & Qt.
- → <u>NeuroEvolver</u>: Neuroevolution software written in Python.
- → Chess Engine: Chess engine written in C++.
- → <u>Cubeland</u>: 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 and vegetables classifier: Implemented in C++ (Digital processing of images and/OpenCV).
- → 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.



