

# JUAN D. LUGO

Website Portfolio: <https://juandlugo.com>

|(C) (850) 848-7065 | Email: [jdugorivera@student.fullsail.edu](mailto:jdugorivera@student.fullsail.edu)

LinkedIn: [linkedin.com/in/juan-diego-lugo](https://www.linkedin.com/in/juan-diego-lugo)

GitHub: <https://github.com/JDMAXilius.com>

## Professional Summary

---

Game Developer with 2 years of professional experience as an Unreal engine programmer. With the flexibility to work in Unreal Engine C++ and Blueprint and the ability of understanding complex game systems. My specialization is in program code for 3D graphic display, multiplayer gaming, artificially intelligent opponents, and real-time virtual environments.

## Technical Skills

---

**Programming Languages:** C++/C#(3 years), Unreal Blueprints(5 years), SQL/Python/GLSL/HTML/CSS/MEL(1 years)

**Development Tools/APIs:** Unreal Engine, Unity, DirectX, Vulkan, Visual Studio, Git, GitHub, Trello, Jira, MATLAB's, FBX Maya, Zbrush, Photoshop, Painter/Designer,

**Engine Development:** Light & Rendering, vertex/pixel shaders (HLSL/GLSL), frustum culling, back-face culling, 3D physics, object/data oriented, multithreading, sorted and flagged pools, collision detection, shadow mapping

**Gameplay Programming:** Gameplay System, UI, Animations, IK system support, Multiplayer networking

**AI Programming:** behavior trees, minimax, flocking mechanisms, path-finding algorithms

(breadth-first, depth-first, greedy, A\*, JPS+), Machine Learning, AI Perception, Environment Query System, enemy system

**3D Math & Other Knowledge:** System Programming, Data Structures, Physics, Linear Algebra, Probability, Computer Graphics, Operation System, 3D Content Creation, Computer Networks, Engine Development

## Experiences

---

**OGNode Ltd./StrongNode - Unreal Engine Programmer (Website: [strongnode.io](https://strongnode.io))**

07/2022 – 09/2022

- Communication via email, Slack, Discord, GitHub, Jira, Zoom/Google Meet, and Weekly Report/Plan
- Created tools that allowed level designers to quickly iterate on map designs before implementing them like navigation spline and actor classes.
- Integrate Unreal Engine levels, assets, graphs, blueprints, and UI widgets
- Develop game features to include character development, navigation, and user experience/interaction with world objects
- Developed and implemented game features, including gameplay mechanics, AI behavior, animation systems, navigation patrol and NPC simulation

**Original Gamer Life (OGL) - Unreal Engine Programmer (Website: [ogl.gg](https://ogl.gg))**

04/2022 – 07/2022

- Drive Engine Programming (C/C++), Plugin and Standalone Application concepts to integrate library assets or the modification of existing assets; Creates new code and optimizes existing code
- Integrate Unreal Engine levels, assets, graphs, blueprints, and UI widgets
- Develop game features to include inventory, character development, navigation, and user experience/interaction with world objects
- Optimize and develop in passes resulting in further optimization of frame rates, network performance, and reduced minimum requirements
- Develop on the Main player Gameplay system, Animations and Networking replication programming
- Implemented highly extensible and tweakable gameplay systems on UE4 C++ that can be extended and overridden in Blueprints.
- Implementation of advance animation and gameplay that include animation notifies, Ik controls, replication, AO, Aiming mechanics, blend space, and 3d math
- Implementation Object-oriented Weapon custom system that contain all the weapon code and attributes by using data tables, enums, and save/load code to custom the weapon parts and create a preset that can be access in the server.

**Covalent Reality VR Game Developer - Lead Generalist Programmer (Developer II) [covalentreality.com](https://covalentreality.com)**

10/2019 - 06/2020

- Worked on highly detailed VR projects as game designer/developer
- Worked on many aspects of the game including gameplay systems, engine systems, UI, networking of gameplay and engine systems, and optimization across all systems and platforms. Some features character movement and mini games
- Worked with a team of programmers to design and implement new features and bug fixes in a C++ embedded systems project like fixing 3d assets pipeline, bugs like movement, gameplay and graphics.

### 3D Character Artist (Freelance/Contract)

04/2017 - 09/2019

- Program/design materials shader for the team in Maya and Unreal Engine 4.

### Projects

#### The Blind Forest (Technical Artist) and (Lead Programmer) Unity

04/2021 – 07/2021

Website: <https://juandlugo.com/game-developer-projects/the-blind-forest.html>

published on simmer.io

- Develop the main Character, enemies AI and obstacles, such as player movement, abilities system, health system, combat system, etc.
- Designed and developed core gameplay systems, rules, mechanism game loop, game feel like camera, enemies' behaviors. Rules likes wining, game over, obstacles and experiences.

#### Lord of Kings (Lead Developer) and (Lead Programmer) Unreal Engine

03/2022 – 07/2022

Website: Soon...

published on Steam

- Develop the main Characters, combat melee and range system, Gameplay, Animation and Networking programming
- Develop the Humans AI melee and range combat system, Gameplay, Animation and Networking programming
- Designed and developed core gameplay systems, rules, mechanism game loop, game feel like camera, enemies' behaviors. Rules likes wining, game over and experiences.
- Designed and implemented multi-state AI for the final boss of the game using Behavior Trees

### Education

Bachelor of Science in Game Development: 3.62 GPA

2020-2022

Full Sail University, Winter Park, FL

**Achievement:** Course Director award