Christian Licona

Tools and Gameplay Engineer

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SKILLS

Programming Languages	C/C++ | C# | Lua | Python | GLSL/HLSL | Visual Scripting
Software	ImGui | OpenGL | GNU Make | CMake | Doxygen | Valgrind | Git | SVN/Subversion | Plastic SCM | Perforce | TeamCity | Excel
Tools	Visual Studio | JetBrains Suite | Unity | Unreal Engine | WinForms | Maya | Substance Painter | Jira | Confluence | Davinci Resolve
Programming Skills	Debugging | Cross Platform Development | Optimization | Multithreading | Object-Oriented Programming | ECS
Soft Skills	Work ethic | Critical thinking | Teamwork | Communication | Time management | Remote work
Platforms	Windows | Linux | Mac OS | Nintendo Switch | Meta Quest 2 & 3 (Android)

EXPERIENCE / PROJECTS

Engineer
Individual Project | Dec 2025–Apr 2026

Flex Targeting for Unity | (Unity Engine, C#, GitHub)

- Designed and developed a light-weight allocation-free function library aimed at simplifying gameplay prototypes that need to sort and score the best target among a collection of targets
- Compiled 8 learning resources to assist in designing allocation-free functionality when working with delegates and iterators
- Established a GitHub hosted C# function library under the MIT license for the benefit of all Unity developers
- Tested the function library on 40+ unit tests using the Unity Test Framework to verify allocation-free designs

Engineer
Endeavor One | Feb 2024–Dec 2024

Unannounced Project | (Unity Engine, VR, Perforce)

- Explored solutions to problems with vr physics based combat to ensure a stable physics gameplay experience
- Documented and setup weapon prefab conventions to support rapid prototyping and construction of 5+ new weapons and ensure Design, Art, and Engineering can effectively contribute to each weapon simultaneously
- Implemented a spectator camera allowing a 2nd person to capture camera views other than what the VR player is seeing, in support of gathering footage for trailers, gifs, and videos

Engineer
Endeavor One & Forward XP | Nov 2023

Arashi: Castles of Sin - Final Cut | (Unity Engine, VR, Meta Quest 2 & PCVR, Perforce)

- Supported external partners with testing, performance profiling, and bug reporting to hit major issues and soften the load during the final stretch of production

Engineer
Endeavor One | Dec 2022–Oct 2023

Unannounced Project | (Unity Engine, VR, Perforce)

- Developed an internal build manager and scene collections tool, making it easy for anyone to make a build with a certain collection of scenes and enabling quick setup of automated builds through TeamCity
- Rapidly prototyped 10+ new VR forward weapons and mechanics in collaboration with Design to help guide the direction of the game
- Researched and explored implementations for scaling the player in VR correctly while avoiding issues with motion sickness

Engineer
Endeavor One & Camouflaj | Jun 2022–Nov 2022

Iron Man VR | (Unity Engine, VR, Meta Quest 2, Perforce)

- Gathered performance profiler data to identify causes of performance spikes, working with engineering to make improvements and hit Quest 2 target framerate of 72fps
- Experimented with occlusion culling in certain levels to determine viability for improving performance
- Reported bugs into JIRA and implemented bug fixes and polish improvements for high priority issues
- Collaborated with artists to test performance improvements for certain problematic visual elements

Tools and UI Engineer
Team of 11 | Sep 2021–Apr 2022

DeltaBlade 2700 Re:Create | (Custom Engine, 2D, C++, Git, CMake, Steam)

- Created a developer Tilemap editor using ImGui to focus on rapid creation and testing of 12+ core levels
- Developed a UI system utilizing ECS components, allowing the creation of complex UI relationships with minimal code
- Designed a Level Editor with our in-house UI system so players can easily create and share new levels
- Integrated multiple performance profilers under a common API, allowing performance analysis across multiple development platforms

Graphics Engineer
Individual Project | Sep 2020–Apr 2021

OpenGL Graphics Framework, Academic Project | (C++, 3D, Git, CMake)

- Created a real-time rendering framework with C++, Glad, GLFW, and OpenGL to visualize advanced graphics
- Implemented the Phong shading model in GLSL to support rendering ambient, diffuse, and specular properties with up to 16 light sources
- Improved debugging of new graphics features with an ImGui interface allowing modification of graphics properties in real-time
- Combined forward and deferred scene rendering with frame buffers to efficiently render scenes with high polygon counts

Gameplay Engineer
Team of 10 | Sep 2020–Apr 2021

Department of Astromaterial Acquisition | (Unity Engine, 3D, C#, Git)

- Rapidly prototyped gameplay systems to determine the direction of the project during pre-production
- Documented playtest reports using feedback forms and spreadsheets to help guide team priorities and progress
- Modeled, textured, and animated an in-game item using Maya and Substance Painter so players can craft and use the item in gameplay

Tools and Gameplay Engineer
Team of 11 | Sep 2019–Apr 2020

Infinite Supernova | (Custom Engine, 2D, C++, Git, CMake)

- Built a visual debugger with ImGui for the teams benefit of viewing and editing engine parameters on the fly
- Developed a custom level editor with ImGui, allowing designers to rapidly build and prototype new levels and game modes
- Maintained core graphics systems utilizing OpenGL for rendering game objects
- Wrote gameplay scripts in Lua using an integration developed between the custom C++ engine and Lua

Gameplay Engineer and Producer
Team of 5 | Jan 2019–Apr 2019

Deep Space Express | (Custom Engine, 2D, C, Git)

- Wrote documentation for the benefit of team members interfacing with different systems
- Incorporated into our engine system design techniques being taught concurrently with production of the project
- Built 6 different types of player controllable game objects in C making use of pseudo inheritance to speed up the creation process

Gameplay Engineer
Team of 3 | Oct 2018–Dec 2018

Alpacadores | (Custom Engine, 2D, C, SVN)

- Animated and programmed 4 player character ultimate abilities to further deepen gameplay options
- Learned to utilize a provided lightweight engine to rapidly develop the project in a limited timeline of 6 weeks

EDUCATION

Bachelor of Science in Computer Science in Real-Time Interactive Simulation
Redmond, WA | Graduated 2022

DigiPen Institute of Technology

Topics studied: Data structures, algorithm analysis, operating systems, memory management, Linux environments, computer graphics, linear algebra, calculus and analytic geometry, networking, artificial intelligence, raytracing

VOLUNTEER EXPERIENCE

Redmond Dragon Run
Redmond, WA | Sep 2018 & Aug 2019

- Assisted in setting up and preparing tablets around Redmond to be prepared to meet residents participating in the Dragon Run event
- Ran an event kiosk, guiding players on their quests and to their next destinations around Redmond town center and providing them with an enjoyable and smooth experience