Christian Licona

Tools Programmer

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Skills

Programming Languages
C/C++ | C# | Lua | Python | GLSL/HLSL | UE4 Blueprints

Software
ImGui | OpenGL | GNU Make | CMake | Doxygen | Valgrind | Git | SVN/Subversion

Platforms
Windows | Linux | Nintendo Switch (familiar)

Programming Skills
Debugging | Cross-Platform Development | Optimization | Multithreading | Object-Oriented Programming

Tools
Visual Studio | CLion | Pycharm | Unity | Unreal Engine 4 | Windows Forms | Maya | Substance Painter | Slack | Excel

Soft Skills
Work ethic | Critical thinking | Teamwork | Communication | Time management | Logical | Remote work | Supportive

Education

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

Projects

Tools and UI Programmer
Sep 2021 – Present
Team of 11
DeltaBlade 2700 Re:Create – (Custom Engine, C++, Git, CMake)
- Created a developer Tilemap editor using ImGui to focus on rapid creation and testing of new levels
- Developed a UI system with ECS components, allowing 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 Programmer
Sep 2020 – Apr 2021
Individual
OpenGL Graphics Framework, Academic Project – (C++, Git, CMake)
- 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

Tools Programmer
Sep 2019 – Apr 2020
Team of 11
Infinite Supernova – (Custom Engine, C++, Git, CMake)
- Built a visual debugger with ImGui for viewing and editing engine parameters on the fly
- Developed a custom level editor using 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 Programmer, Producer
Jan 2019 – Apr 2019
Team of 5
Deep Space Express – (Custom Engine, 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 using pseudo inheritance

Volunteer Experience

Redmond Dragon Run
Sep 2018 & Aug 2019
- Helped set up and prepare tablets for use by residents of Redmond, Washington in the Dragon Run event
- Ran an event kiosk, guiding players on their quests and to their next destinations around Redmond town center