**Charles Boudousquie**

https://www.linkedin.com/in/charles-boudousquie

425-429-5210

[boudousquie@comcast.net](mailto:boudousquie@comcast.net)

<https://github.com/charlesboudousquie/Portfolio>

# Computer skills

## Languages

* C/C++
* C# (some experience)

## Operating Systems

* Windows
* Linux (some experience)

## API

* OpenGL 3 / 4.3
* ImGui / ImGuiZmo
* Assimp
* Bullet3
* GLFW, SDL
* Berkeley Sockets (Built for Windows and Linux)

## Tools

* CMake
* Doxygen
* Visual Studio
* Git (command line)

## Soft Skills

* Working on a team
* Pair Programming
* Always willing to give and receive help

# Education

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| --- | --- |
| DigiPen Institute of Technology Redmond, WA   * Bachelor of Science in Computer Science in Real-Time Interactive Simulation * Basic Networking * OpenGL Basic 3D Rendering, Reflection, Refraction, and Render to Texture, Deferred Shading. | 9/2016 – 4/2021 |

# Academic Projects

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| --- | --- |
| Engine Programmer | 1/2018 – 4/2018 |

**Gun Garden** – 2D Action Bullet Hell

* Developed and maintained Customizable Particle System
* Created Menus and Tutorial level

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| --- | --- |
| Editor Programmer | 9/2018 – 3/2019 |

**Project Abyss** – 3D First Person Light Mixing Puzzle Platformer

* Set up graphics using OpenGL.
* Integrated Bullet3D for physics including Wireframe/Bounding Box debug drawing.
* Added Translation, Rotation, and Scale Gizmos.
* Implemented Ray Picking to Move objects with mouse.
* Integrated nholmann JSON for level and object serialization.
* Added FMOD Studio setup.
* Used ImGui window docking and OpenGL’s “Render to Texture” to emulate Unity’s window tabbing system and Game View.
* Implemented First Person Camera and Editor Mode Viewing
* Undo/Redo functionality (save state)

# Summary

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| 3 years of game programming including Graphics, Particle Systems and UI. |