Charles Boudousquie

Tools and AI Developer

https://www.linkedin.com/in/charles-boudousquie
425-429-5210
boudousquie@comcast.net
https://github.com/charlesboudousquie/Portfolio

SUMMARY

Software Engineer with 3.5 years of video game programming experience including Graphics, Particle Systems, Built from scratch 3D editors and Behavior Trees.

COMPUTER SKILLS

Languages
- C++ (4 years)
- C#
- Python

Operating Systems
- Windows
- Linux

API
- OpenGL 3 / 4.3
- ImGui / ImGuiZmo
- Assimp
- Bullet3
- GLFW, SDL
- Berkeley Sockets (Windows and Linux)

Tools
- CMake
- Doxygen
- Visual Studio
- Git (command line)
- Unity, Unreal Engine 4

Soft Skills
- Working on a team
- Pair Programming
- Always mentoring and open to new ideas

EDUCATION

Bachelor of Science in Computer Science in Real-Time Interactive Simulation –
Redmond, WA   9/2016 – 4/2021

DigiPen Institute of Technology
- Basic Networking
- OpenGL 3D Rendering, Reflection, Refraction, Texture, and Deferred Shading.
- AI pathing and problem solving

ACADEMIC PROJECTS

Engine Programmer   1/2018– 4/2018

Gun Garden – *2D Action Bullet Hell*
- Developed and maintained Customizable Particle System
- Created Menus and Tutorial level

3D Editor Programmer   9/2018– 3/2019

Project Abyss – *3D First Person Light Mixing Puzzle Platformer*
- Researched and integrated tools for custom 3D video game editor
- Set up graphics using OpenGL.
- Integrated Bullet3D Wireframe and
- Bounding Box debug drawing
- Added Translation, Rotation, and Scale Gizmos
- Ray Picking to move objects with mouse
- Integrated Nlohmann JSON for serialization
- Implemented scene viewing
- FPS Camera and Editor Mode Viewing
- Undo/Redo functionality (save state)

Reformed Studios   9/2019 – 4/2020
3D Tech Demo

- Implemented efficient, shared behavior tree system
- Created Behavior trees with said system

Personal Project   5/2020 – 8/2020
- Created 3D Octree navigation