**Charles Boudousquie**

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C++ Software developer with 3+ years of professional experience.

**RELEVANT SKILLS AND TOOLS**

* **Programming Languages**: C++, Python, Javascript
* **Technologies**: OpenGL, Linux, Windows, Pybind11, D3.js
* **Game Development**: Unity, Unreal Engine 5
* **Version Control**: Git
* **Development Environments**: VS Code, Visual Studio

**EXPERIENCE**

**Meta,** Seattle, WA Apr. 2022 – Apr. 2024

*Software Developer*

* Optimized build processes for multiple projects, achieving a reduction in build times by up to 87.5%, including a significant improvement from 8 minutes to just 1 minute on a major project.
* Developed interfaces using Pybind11, enabling seamless collaboration between Python and C++ developers.
* Implemented fast C++ Apache Thrift serialization, doubling the speed of our data processing.

**Cornered Rat Software,** Seattle, WA Sept. 2021 – Apr. 2022

*Software Developer*

* Fixed game breaking C++ bugs in the video game World War 2 Online enhancing gameplay stability and backend performance.
* Fixed various UI bugs and features in Javascript.

**EDUCATION**

Digipen Institute of Technology, Redmond, WA Sept. 2024 - Present

M.S. in Computer Science

Digipen Institute of Technology, Redmond, WA Sept. 2016 – Apr. 2021

B.S. in Computer Science

* Completed C++ coursework in Graphics programming, AI pathing, and working in large teams to develop video games programmed from scratch.

**PROJECTS**

* Personal Project: Full flight 3D Octree navigation (pathfinding through an octree)
* 3D Editor: Created a full fledged custom 3D game editor using C++ (essentially recreating unity from pure scratch for our game designers)
* Behavior Tree System: Implemented memory efficient behavior tree system in C++ for AI in my team’s game project (based on behavior tree system used for Halo 2’s AI).