Matthew Au Yeung

SOFTWARE ENGINEER

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LinkedIn | **GitHub** | **Webpage**

Objective

A passionate junior programmer with experience in creating games with Unity and C++, and collaborating in a production team. Interested in creating both 3D and 2D games and have experience in developing gameplay and AI systems.

Skills and Specialties

C++, C#, Visual Studio, Unity, GitHub, SourceTree, Trello, OOP, Object Pool, Artificial Intelligence

Project Experience

POKEMON BATTLE SIMULATOR (2D GAME MADE IN UNITY), JAN 2021 - MAR 2021

- Implemented tools to create Pokémon and define move sets and attributes using scriptable objects.
- Developed enemy AI which decides the most optimal counters during combat.
- Replicated the classic 2D Pokémon's battle HUD, the formula of calculating damage, type effectiveness.

ABOVE GROUND (3D 3RD PERSON ACTION GAME MADE IN UNITY), DEC 2019 - JUL 2020

- Implemented various player abilities (warp and phase grab), enemy AI (Robot), particle effects.
- Imported custom models and combined them with the custom animations.
- Bug fixing and polishing other features (slow bomb, moving platforms, player attack combos).

MAGE (CUSTOM C++ GRAPHICS ENGINE), SEPT 2019 - MAR 2020

- Implemented Math library with support for linear algebra and 3D geometry.
- Implemented Physics library for Verlet particle simulation with support for constraints.
- Implemented Graphics library with meshes, color, light, camera etc.
- Implemented model loader with animation support.

BIRTH OF A HERO (2D GAME MADE IN A CUSTOM C++ GAME ENGINE), DEC 2018 - JAN 2019

- Developed a game state system to manage the game mode transitions.
- Implemented player character and combat control with 2D animations.
- Designed and created AI for two different enemies and a boss fight.

Education

BACHELOR OF SCIENCE IN GAME PROGRAMMING | 2018 - 2021 | LASALLE COLLEGE VANCOUVER