Cole Chang

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TECHNICAL SKILLS

Languages: C++ | Python | Java | C# | C | HTML/CSS
Technologies: Unreal Engine | Unity | Maya | Git | Linux | Bash

HIGHLIGHTED PROJECTS

Ray Tracer

- Implemented a ray tracer in C++ OpenGL
- Simulates the path of light to create a realistic rendering of a 3D scene

Integrating Believable Artificial Intelligence into the Unreal Engine

- Project that works towards creating believable AI for games, coupled with the highly realistic visual fidelity in the Unreal Engine Metahuman project
- Has the potential to greatly advance the state of player immersion with more believable NPCs in video games.
- Made with C++ and Unreal Engine

Parking Valet

- 3D parking simulator created in Unity with precise movement controls, paired with a clean UI and various levels
- Collision detection between cars written in C#

WORK EXPERIENCE

Research Lead - University of Western Ontario London, Ontario | 2021 – April 2022

Worked under Professor Mike Katchabaw as the lead on a project involving the use of artificial intelligence in non-playable characters in modern video games.

- Designed artificial intelligence algorithms to provide predictive analysis within NPCs
- Built reusable assets for future research or commercial use
- Created an emotional response system through stimuli sources integrated in highly realistic characters
- Completed a working prototype that can be distributed for future projects

Landscape Work – DC Corporation Toronto, Ontario | Summer 2017 – Present

- Improved landscape appearance for various complexes and homes
- Maintained an efficient work pace
- Primarily participated in weed control
- Ensured friendly environment customer service for residents

EDUCATION

Western University – B.Sc. Honours Specialization in Computer Science London, Ontario | 2018 – 2022

Graduated with 3.7 GPA (Deans Honour List)

Relevant Courses: Artificial Intelligence (Python), Computer Organization and Architecture (Assembly), Data Structures and Algorithms (Java), Object-Oriented Design and Analysis (C++)