Eric Xu Cui Personal Site

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Education

McGill University

Bachelors of Science in Computer Science, Minor in Mathematics

- Selected Coursework: Foundations of Programming, Linear Algebra, Software Systems, Discrete Structures, Honours Algorithms&Data Struct, and Programming Lang & Paradigms
- GPA: 3.64

Technical Skills

Communication Languages: English, Chinese(Mandarin)

Programming Languages: Python, C/C++, and Blueprint (Unreal Engine scripting) **Developer Tools:** Unreal Engine 4 & 5, Visual Assist, Visual Studio, Rider for Unreal Technologies/Frameworks: Behavior Tree AI Design, UE5 Learning Agents, Reinforcement Learning (Basic), Game AI

Systems

Experience

Wingfox Yiihuu

C++ Unreal Engine Game-play Development Lecturer(Contract)

- Designed and delivered technical lectures on C++ Unreal Engine 4 AI Behavior Tree systems, incorporating advanced AI features such as Blackboard, Decorators, and Tasks, inspired by Sekiro and Dark Souls.
- Developed a second course on Unreal Engine 5 RPC Multiplayer Architecture, covering client-server LAN architecture, Remote Procedure Calls, character synchronization, and game mode logic.
- Reached over hundreds of students worldwide enrolling in my programming lectures, pursuing their dreams of becoming video game developers.

Tin Gameworks(Indie Studio)

Video Game Development Engineer (Contract)

- Developed core gameplay systems and AI logic for NPC enemies using C++ and Unreal Engine 4, including combat behavior, pathfinding, and reactive animations.
- Collaborated remotely with a team of designers and artists to integrate gameplay mechanics and optimize performance across test builds.

Personal Projects

UE4 C++ Motion-Controlled Melee Combat System - YIS Semifinalist

- Designed an immersive melee combat prototype using Unreal Engine 4 and gyroscope motion sensors, allowing players to control attacks (slash, stab, block) via real-world tilt and motion input.
- Implemented core gameplay logic in C++, with character actions consuming energy and triggering animations through gyroscopic data and **RPC-based networking**.
- Advanced to the semifinals of the 2023 BC Youth Innovation Showcase, recognized for innovation in accessible motion-controlled gaming.

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Montréal Canada Aug 2024 - Present

Guangzhou, Guangdong, China Remote

Sept 2023 - August 2024

Freelance Remote

June 2022 - August 2024

2023