NOYA CAI

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OBJECTIVE

Gameplay/Graphics programmer and Technical artist. Available now. Open to relocate.

EDUCATION

Rochester Institute of Technology (RIT)   *Aug/2023 - May/2025*
Master of Science in Game Design and Development
Course Taken: Computer Animation, Game Graphics Programming, Global Illumination
University of Science and Technology of China (USTC)   *Sep/2019 - June/2023*
Bachelor of Engineering in Computer Science
Course Taken: Computational Methods, Equations of Mathematical Physics, Data Structure and Algorithm

SKILLS

Programming	Proficient in C, C++, C#, GLSL, HLSL, Python, Swift, Java, HTML
Library	OpenCV, OpenGL, OpenXR, DirectX11, CUDA, ARKit, RealityKit
Software	Unity, Unreal Engine, Visual Studio Code, Visual Studio, Xcode, Trello, Figma

WORK EXPERIENCE

Ylem Studio, Gameplay Engineer   *May/2025- Present*
Keywords: VR, PCVR, Unreal Engine 5, C++, Gameplay Systems, Physics, Performance Optimization
• Developed gameplay systems and interactive mechanics for a VR puzzle game using the Oculus branch of Unreal Engine 5, an open-source VR-optimized UE5 build.
• Implemented VR interactions, physics-based manipulation, and puzzle logic using Blueprints and C++.
• Designed modular gameplay systems that support multiple player-driven solutions and emergent gameplay.
• Optimized gameplay performance, memory usage, and interaction responsiveness for both standalone VR and PCVR platforms.
Magic Spell Studio, Augmented Reality Software Engineer   *Jan/2024-Apr/2025*
Keywords: VR/AR, Unity, C#, SwiftUI, ARKit, RealityKit, ios, Figma, Trello
• Developed an AR windowed application using Unity for Apple Vision Pro to be used in medical fields.
• Worked with designers to implement complex UI/UX system to meet client's needs.
• Worked with data engineers to migrate data from FHIR server to an AR application.
• Using SwiftUI, ARKit, Compositor Services, and RealityKit to develop an AR immersive application for Apple Vision Pro to be used in medical research.
• Separated the main thread of the program into multiple threads and improved the overall speed by 30%.

PROJECTS

Duolatera (Capstone VR online co-op puzzle game)   *Aug/2024-May/2025*
as Technical Artist, and Graphics/Gameplay Programmer, using UE5, C++, HLSL and Unreal Insight
• Designed and implemented a cel-shading pipeline for forward rendering, which is otherwise unachievable through regular methods commonly used in deferred rendering
• Using both materials and Niagara systems, created procedurally generated VFX for portals, lasers, shoot-able items, interact-able items as well as several other in-game props.
• Implemented in-game dialogue system, voice chat system, load and save game system, and several other gameplay puzzle mechanics.
• Improved the overall game performance by analyzing data from Unreal Insight and optimizing gameplay and shader code complexity.