NOYA CAI

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OBJECTIVE

Technical artist and Gameplay/Graphics programmer. Available from May 2025. Open to relocate.

EDUCATION

University of Science and Technology of China (USTC) *09/2019 - 06/2023*
Bachelor of Engineering in Computer Science and Technology
Rochester Institute of Technology (RIT) *08/2023 - Present*
Master of Science in Game Design and Development

COURSES

Math	Linear Algebra, Calculus, Computational Methods, Equations of Mathematical Physics
CS	Computer Architecture, Data Structure and Algorithm, Computer Networks, Data Base
Graphics	Computer Animation, Game Graphics Programming, Global Illumination

SKILLS

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

WORK EXPERIENCE

Augmented Reality Software Engineer *Magic Spell Studio, RIT*
Keywords: VR/AR, Unity, C#, SwiftUI, ARKit, RealityKit, ios, Figma, Trello *02/2024-Present*
- 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

GPU-Based Global Illumination Renderer and Ocean Simulator *01/2024-05/2024*
as Graphics Programmer, using Linear Algebra, C++, OpenGL, GLSL
- Implemented a path tracer that allows user-defined primitive shapes including triangles and spheres.
- Implemented multiple tone-reproduction post effects which can be selected according to different image and screen brightness conditions.
- Based on this renderer, implemented a realistic Ocean Simulator with Gerstner wave, Caustics, and click-promoted water circle wave on the surface.

Warped as Gameplay Programmer and Technical Artist, using Unity, GitHub, Agile *08/2023-12/2023*
- Implemented a complex rotation system as the main mechanism of a top-down isometric puzzle game.
- Designed and implemented cut-scene animation using Bezier Curve and Catmull-Rom spline.
- Designed, modeled, and rigged the main character using Blender.

ACTIVITY

Captain of management school's Female Soccer Team *USTC, 09/2020-05/2022*
- Recruited 8 teammates, organized and oversaw weekly training sessions, acquired sponsorship for equipment
- Increased the team rank from 8 to 4 out of 8 teams