Phuong (Airi) Pham

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EDUCATION – University of Southern California – BS & MS Computer Science (5/2025) – GPA: 3.80

TECHNICAL SKILLS – Python, C, C#, C++, Unity, Unreal, Maya, Nuke, Photoshop, OpenGL, DX11, GLSL, HLSL, GitHub, Perforce

WORK EXPERIENCE

Technical Artist Intern | C++, RenderDoc, Unreal, Perforce 05/2024 – Present

Respawn Entertainment – EA @ Los Angeles, CA

- Develop an Assets Library in Unreal for artists to easily obtain and inspect assets, cutting down the labor cost of searching/recreating environment assets across multiple titles in the Star Wars franchise.
- Leverage Unreal Blueprints and C++ to add key features such as shop cart user interface, examine mode for meshes and maps, teleportation to objects, and props collection list.
- Collaborate with Respawn Technical Art Director to design UI/UX, data flow schemes, and implement utility tools that ensure a smooth user experience and seamless connection with EA Shared Assets Library.

COLLABORATIVE PROJECTS

Technical Artist | HLSL, Unity, Perforce | Link 09/2023 – Present

The Veiled Ones @ Los Angeles, CA: *A student-run horror game from University of Southern California*

- Utilize Unity HDRP shader, VFX, and post-processing tools to implement special particle and full-screen visual effects in gameplay and cinematics that enhance the game's horror aesthetics.
- Design environmental and interior lighting work along with a flashlight mechanic that adjusts brightness according to screen luminance with GPU compute shader.
- Collaborate with eight teammates across design and engineer to debug and optimize visual elements and performance.

VFX Technical Artist | HLSL, Unity, Github | Link 05/2024 – Present

Lanesplitterz @ Los Angeles, CA: *A stylized bowling game by University of Southern California game students*

- Implement stylized toon post-processing effect based on depth, normal, and color using Unity URP shader graphs and HLSL.
- Design and create VFX for impact, launch, and smoke trails with Unity VFX graph.

VFX Technical Artist | Unreal, Perforce 05/2024 – Present

DuoQ @ Los Angeles, CA: *An upcoming FPS dating sim game by University of Southern California game students*

- Conceptualize and create variations of visual effects for a first-person-shooter game such as gun-muzzle flash.
- Brainstorm VFX designs and hand-draw 2D texture assets for effects.

PERSONAL PROJECTS

Renderer From Scratch | C++ | Link 12/2023 – 01/2024

A software renderer built in C++ and the glm math library

- Developed a rendering pipeline capable of parsing .obj files, rendering 3D objects using the Gouraud shading technique (including diffuse, specular, and ambient lighting), with support for normal, glow, shadow mapping, and gamma correction.

ACADEMIC PROJECTS

Inverse Kinematics with Skinning | C++, OpenGL | Link 04/2024

CSCI 520: Computer Animation

- Implemented the algorithm for skinning, forward kinematics, and inverse kinematics to deform 3D characters.

Game Engine | C++, DX11 | Link 03/2024

ITP 485: Programming Game Engines

- Built a 3D game engine with fundamental subsystems like rendering, animation, physics, and post-processing.

Ray tracer | C++, OpenGL | Link 03/2023

CSCI 420: Introduction to Computer Graphics

- A ray tracer for rendering opaque surfaces using 3D intersection calculations, Phong shading, and recursive reflection.

EXTRACURRICULAR

President 12/2023 – Present

USC ACM SIGGRAPH @ Los Angeles, CA: University of Southern California's chapter in computer graphics

- Collaborate with six executive board members to strategize & set up logistics to host study/workshop sessions on computer graphics topics like 3D animation, technical art, graphics research, and game development.
- Do outreach to professionals in the industry from Netflix and Naughty Dog for students to connect with experts and peers about CG, attracting 20-50 attendants per event.