YIFAN LU

Technical Artist

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(215) 669-1621
Philadelphia, PA

EDUCATION

University of Pennsylvania

Philadelphina, PA, May 2025

Master of Science in Engineering, Computer Graphics and GameTechnology

Sichuan University

Chengdu, China, Aug 2023

Bachelor of Engineering in Computer Science (Honours)

SKILLS

Maya Plugin Development
Houdini Plugin Development
Procedural Asset Generation
GPU Profiling & Optimization
Rendering, Lighting, VFX
3D Modeling & PBR Texturing
Material Optimization
Shader Development
Maya Rigging & Animation
Motion Capture

TOOLS

Programming & Languages:

C++, Python, C#, GLSL, WGSL, CUDA, MEL, VEX

Graphics APIs & Engines:

Vulkan, OpenGL, WebGPU, Unreal Engine, Unity, USD

DCCs:

Houdini, Maya, 3Ds Max, Zbrush, Substance Designer & Painter, Adobe Photoshop, Premiere, Procreate

SHIPPED TITLE

Delta Force (Tencent)
Skull and Bones (Ubisoft)

EXPERIENCE

Tencent TiMi Studio · Technical Artsit Intern

Shenzhen, China, May 2024 – Aug 2024

- Worked closely with artists, engineers, and designers to develop and maintain DCC tools for Maya, 3ds Max, and Adobe Substance Suite, improving shader/material workflow efficiency
- Designed and optimized a UE4 C++ plugin for seamless asset import, material assignment, and shader compatibility, ensuring smooth cross-platform integration between DCC tools and Unreal Engine
- Collaborated with the rendering and art teams to refine PBR materials, lighting effects, and procedural shader pipelines, ensuring assets met artistic and technical standards

University of Penn. · Teaching Assistant – Computer Animation

Philadelphia, PA, Aug 2024 - Dec 2024

- Assisted in setting up and maintaining a motion capture system
- Provided technical guidance on FK/IK dev, crowd behavioral simulation
- Held office hours and graded assignments

Ubisoft · Quality Control Intern

Chengdu, China, Feb 2023 – Jun 2023

- Used in-house debugging tools to identify gameplay and graphics issues
- Collaborated with engineers and artists to optimize performance
- Conducted stress & performance tests to ensure stability across platforms

PROJECTS

CUDA Path Tracer (C++, CUDA, Rendering)

Philadelphia, PA, Sept. 2024 - Oct. 2024

- Developed a GPU-accelerated path tracer with physically-based shading, refraction
- Implemented post-processing effects and camera depth of field
- Optimized memory access patterns, improving performance for complex scenes

FluidFoam (Houdini Simulation Plugin) (C++, Houdini, Fluid Simulation)

Philadelphia, PA, May. 2024

- Designed a SPH-based fluid solver for realistic foam, spray, and bubble interactions
- Optimized workflow for artist-friendly fluid interaction and rendering

Endless Neon – Procedural City Generator (Houdini, UE5, Substance)

Philadelphia, PA, Nov. 2024 - Dec. 2024

- Developed a Procedural Dependency Graph (PDG) pipeline for large-scale city
- Created procedural PBR textures and emissive material shaders for neon signs, wet surfaces, and volumetric lighting
- Implemented post-processing effects to enhance the cyberpunk atmosphere
- Integrated Houdini-generated assets into Unreal Engine 5 for real-time rendering