

Shutong Wu

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Science
Master of Science in Engineering, Computer Graphics and Game Technology

Aug 2022 - May 2024
Philadelphia, PA

Syracuse University, College of Engineering and Computer Science
Bachelor of Science in Computer Science

Aug 2016 - May 2020
Syracuse, NY

Featured Coursework: GPU Programming (CUDA, Vulkan, C++), Computer Graphics (C++), Computer Animation (Houdini, Maya, C++), Game Design (Unity, C#), Data Structures and Algorithms (Java)

Honors: Magna Cum Laude; Cumulative GPA 3.8/4.0; Dean's List (2018-2020), JASSO Scholarship Awarded by Tohoku University (Summer 2018), member of Tau Beta Phi since 2019

SKILLS

Programming Languages: C++, C#, Python, Java, HTML/CSS/JS

Tools and Frameworks: Git, Node.js, OpenGL, CUDA, Unity, Unreal Engine, Vulkan, Maya, Houdini, Qt

EXPERIENCE

Penn Medicine Ophthalmology VR Software Developer

Dec 2022 - Present
Philadelphia, PA

- Work with Dr. Jean Bennett and the clinical team to implement modifications in Unity VR that will isolate specific variables affecting visual discrimination.
- Develop new VR tests of visual function with input and guidance of vision specialists.
- Explore Unity project development and functions including post-processing.

University of Pennsylvania School of Engineering and Applied Science

Research Assistant for Prof. Lingjie Liu

Dec 2022 - Present
Philadelphia, PA

- Developed Unity platform and animation infrastructure for Professor Lingjie's research projects
- Researching how to integrate NeRF into Unity and implement it in a more diverse set of scenarios

ByteDance Ltd. Platform Engineer Intern

Oct 2021 - Feb 2022
Shanghai, China

- Collaborated with ByteDance game studios to develop efficient tools including Overdraw and Mipmap Collector.

Netease Inc. Game Development Engineer

Jan 2021 - Oct 2021
Shanghai, China

- Developed in-game systems and characters for published games *Forever Seven Days* using C#, OpenGL, and Python.
- Completed two published game characters and won first place in the company's yearly game jam.
- Experienced in large project development and project development tools including Unity.

PROJECTS

ARCreation: AR Application that uses Unity and its Compute Shader to implement procedural generation to generate L-System/Grass to real-world views. A Unity Plugin to generate GPU-driven L-Systems is also implemented.

Grass Generation: Generate physically accurate grass with Vulkan and its render pipeline

GPU Path Tracer: A CUDA-based path tracer capable of rendering globally-illuminated images very quickly, and accelerating it with spatial hierarchy, parallel stream compaction, and radix sorting algorithms.

Others: CUDA Denoiser using A-trous Wavelet filter, Boids Flocking Simulation, Individual Unity Game Projects, etc.

ACTIVITIES

Penn Upgrade (Member and Anchor Programmer)

- Quick prototyped and developed games with club members using Unity

