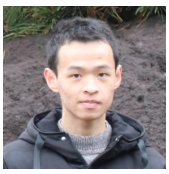
Zihong Zhou

(+86)159-1331-2531 hearwindsaying@gmail.com
https://github.com/Hearwindsaying



Summary

I have strong interests in computer graphics, especially at rendering and realistic image synthesis. With modest coding skills, I spent time in learning and writing ray tracer and thus have the ability of reproducing state-of-the-art techniques.

Education

2017.9 – 2021.6 **B.Sc. Computer Science, South China Agricultural University, China**

GPA: 4.03/5 (Rank: Top 5%)

Skills

Coding	C/C++, C++/WinRT, CUDA, C#, XAML
Framework	OptiX, NSight Compute, Mitsuba, Embree
Misc Knowledge.	LaTeX, Git, Mathematica
Language	Chinese (native), English (CET-6 603/710)

Research

Analytical Area Light Integration via Spherical Harmonics 2020.2-2020.8(expected)

advised by Dr. Li-Yi Wei

Ongoing research project on efficient polygonal and spherical area light integration.
Related (preconditional) experience: implementation of two Siggraph 2018 papers: Integrating Clipped Spherical Harmonics Expansions, Analytical Spherical Harmonics Coefficients for Polygonal Area Lights.

Side Project

Colvillea: A Physically Based GPU Ray Tracer 2018.7-Now

Colvillea is a physically based global illumination renderer running on GPU. It relies on Nvidia's OptiX to achieve parallelism by leveraging GPU resources, resulting in high performance ray tracing rendering.

Living Room in Unity 2019.11-2019.12

A course project work for Virtual Reality which explores Lightmapping techniques with the newest High-Definition Rendering Pipeline in Unity. With prebaked global illumination using ray tracing methodology, it brings the Living-Room scene to the word-class game engine. A naïve comparison of both scene rendered by *Colvillea* and Unity is made.

Simple Photoviewer 2019.3-2019.5

A simple photoviewer written for OOP course using C++/WinRT deployed at Universal Windows Platform. Standard C++17 and XAML language are used for the project. Several optimization techniques are employed to provide the user with a smooth interaction when previewing large image files.