YIBO YIN

yiboyin@whu.edu.cn · (+86) 139 4881 2636 · https://bryceyin13.github.io/

EDUCATION

Wuhan University **Wuhan, China**
B.Eng. in Computer Science and Technology *Sept. 2021 - Present*
GPA: 3.94 /4.00 | **Average Score:** 91.93 /100 | **Ranking:** 8 /254

RESEARCH EXPERIENCE

Graphics and Vision Lab, Wuhan University *May. 2023 - Jan. 2024*
Research Assistant Advisor: Prof. Chunxia Xiao

- Assembled a set of equipment with an Intel depth camera and STMicroelectronics ToF sensors, creating a dataset of over 10,000 images and corresponding sensor data.

Waterloo Computer Graphics Lab, remotely at University of Waterloo *June. 2024 - Aug. 2024*
Research Assistant Advisor: Prof.Toshiya Hachisuka

- Reproduced the algorithm in the SIGGRAPH paper *A Practical Walk-on-Boundary Method for Boundary Value Problems* for solving the boundary value problem of Laplace's equation with Dirichlet boundaries.

Computer Graphics Lab, remotely at the University of Texas at Dallas *April. 2024 - Present*
Research Assistant Advisor: Prof. Xiaohu Guo

- Extended the evaluation algorithm in the SIGGRAPH Course Note paper*Evaluation of Loop Subdivision Surfaces* and the SGP paper *Fitting Sharp Features with Loop Subdivision Surfaces* to fragmented medial axis meshes under Loop Subdivision.
- Extended the simplification algorithm in the SIGGRAPH paper *Q-MAT: Computing Medial Axis Transform by Quadratic Error Minimization* to fragmented medial axis meshes.
- Proposed a subdivision surface fitting algorithm in collaboration with advisor, designed to preserve the sharp features of the fragmented medial axis mesh during fitting.

SELECTED PROJECTS

Software Renderer *Jan. 2023 - Mar. 2023*
Personal Project

- Implemented the rendering pipeline with features including MVP transformations, texture mapping, perspective projection, programmable shaders, shadow mapping, ambient occlusion, etc.

Interactive Ray Tracer *Mar. 2023 - June. 2023*
Project Leader

- Developed a Whitted-style like ray tracing system with an interactive GUI, enabling users to add spheres with customizable metal and dielectric materials to the scene and render them.
- Led the development process, implementing the core ray tracing algorithm, material parameter configuration, object addition, and the asynchronous rendering process with main window.

AWARDS

- **Outstanding Student** (10% school-wide), Wuhan University *2022, 2023, 2024*
- **Second Class Scholarship** (10% school-wide), Wuhan University *2022*
- **Third Class Scholarship** (15% school-wide), Wuhan University *2023, 2024*
- **Lei Jun Computer Innovation and Development Fund**, Wuhan University *2024*

TECHNICAL SKILLS

- **Languages:** Mandarin Chinese (Native Speaker), English (TOEFL iBT 102, R26 | L26 | S23 | W27)
- **Programming Languages:** C++, C, Python, C#, GLSL, SQL, Verilog HDL, Java
- **Library/Framework/Tool/Software:** Git, CMake, Nori, Blender, Pbrt-v3, PyTorch