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:** 92.02 /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 a depth camera and ToF sensors, creating a dataset of over 10,000 images and sensor data.
- Contributed to a research project focused on monocular depth estimation, a sub-task of 3D reconstruction.

Computer Graphics Lab, remotely at the University of Texas at Dallas *April. 2024 - Present*

Research Assistant Advisor: Prof. Xiaohu Guo

- Applied the SIGGRAPH Course Note *Evaluation of Loop Subdivision Surfaces* to medial axis meshes.
- Modified and organized the code for the SIGGRAPH paper *Q-MAT: Computing Medial Axis Transform by Quadratic Error Minimization* to form an open-source project.*[Github]*
- Studied in a project involving subdivision surface fitting under medial axis transform.

Waterloo Computer Graphics Lab, remotely at University of Waterloo *June. 2024 - Present*

Research Assistant Advisor: Prof.Toshiya Hachisuka

- Reproduced WoB method for Laplace's equation with Dirichlet boundaries in the SIGGRAPH paper *A Practical Walk-on-Boundary Method for Boundary Value Problems*.
- Studied in a project involving photon density estimator for partial differential equations (PDEs).

SELECTED PROJECTS

Software Renderer *Jan. 2023 - Mar. 2023*

- Implemented the rendering pipeline with features including MVP (Model-View-Projection) transformations, texture mapping, perspective projection, programmable shaders, shadow mapping, ambient occlusion, and more. *[Github]*

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

- Developed a Whitted-style ray tracing system with an interactive GUI, enabling users to add spheres with customizable metal and dielectric materials to the scene and render them.

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*

TECHNICAL SKILLS

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