YIBO YIN

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EDUCATION

Wuhan University **Wuhan, China**

B.S. 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

- Participated in a research project on monocular depth estimation. Assembled equipment with a depth camera and ToF sensors, creating a dataset of over 10,000 images and sensor data.

Xiaohu Guo's Graphics Lab, remotely at the University of Texas at Dallas *April. 2024 - Present*

Research Assistant Advisor: Prof. Xiaohu Guo

- Reproduced the SIGGRAPH paper *Evaluation of Loop Subdivision Surfaces*. Cleaned up and helped open-sourced code for the SIGGRAPH paper *Q-MAT: Computing Medial Axis Transform by Quadratic Error Minimization.[Github]* Worked on 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*. Worked on a project involving photon density estimator for partial differential equations (PDEs).

SELECTED PROJECTS

Software Renderer *Mar. 2023 - May. 2023*

- Developed a project to deepen knowledge in computer graphics. Implemented the rendering pipeline using programmable vertex and fragment shaders, along with techniques such as shadow mapping and ambient occlusion. *[Github]*

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

- Created as a course project, this application features an interactive GUI allowing users to add spheres with customizable metal and dielectric materials to the scene and render it using Whitted-style ray tracing.

Reproduction of Photon Mapping *Sept.2023 - Dec.2023*

- Reproduced the Rendering Techniques paper *Global Illumination using Photon Maps* with final gathering. *[Github]*

AWARDS

- **Second Class Scholarship** (10% school-wide), Wuhan University *Sept. 2022*
- **Third Class Scholarship** (15% school-wide), Wuhan University *Sept. 2023*

TECHNICAL SKILLS

- **Languages:** Chinese(Native Speaker), English(TOEFL iBT 102)
- **Programming Languages:** C++, C, Python, C#, GLSL, Java
- **Software:** Nori, Blender, Pbrt-v3
- **Library/Framework:** PyTorch