ZILIN XU

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EDUCATION

University of California, Santa Barbara, USA

2023 - Present

Ph.D. student in Computer Science, supervised by Prof. Ling-Qi Yan

Shandong University, Jinan, China

2020 - 2023

Master Degree of Software Engineering, supervised by Prof. Lu Wang

Ranked 1st in the major

Shandong University, Jinan, China

2016 - 2020

Bachelor Degree of Software Engineering

RESEARCH AREAS & SKILLS

Research Areas: Neural Appearance/Material - Rendering - Computer Graphics **Programming Languages:** C/C++, CUDA, Python, Shader languages (Slang/HLSL/GLSL)

Technical Skills: Pytorch, Falcor Renderer, Blender, 3DS Max

TEACHING & WORK EXPERIENCE

Research Scientist Intern at Reality Labs, Meta

Summer 2025 (Ongoing)

Redmond, WA Project Topic: TBD.

Full-time Intern at Autodesk

Summer 2024

Remote from Santa Barbara, CA

Project Topic: Advanced 3D Wood Material and By-example Texture Synthesis in MaterialX.

Teaching Assistant of CS190I: Introduction to Offline Rendering

Winter 2024

University of California, Santa Barbara

SELECTED PUBLICATIONS

Towards Comprehensive Neural Materials: Dynamic Structure-Preserving Synthesis with Accurate Silhouette at Instant Inference Speed 2025

SIGGRAPH 2025

Zilin Xu, Xiang Chen, Chen Liu, Beibei Wang, Lu Wang, Zahra Montazeri, Ling-Qi Yan

A Dynamic By-example BTF Synthesis Scheme

2024

SIGGRAPH Asia 2024

Zilin Xu, Zahra Montazeri, Beibei Wang, Ling-Qi Yan

Lightweight Neural Basis Functions for All-Frequency Shading

2022

SIGGRAPH Asia 2022

Zilin Xu, Zheng Zeng, Lifan Wu, Lu Wang, Ling-Qi Yan

Unsupervised Image Reconstruction for Gradient-Domain Volumetric Rendering

2020

Computer Graphics Forum (Proceedings of Pacific Graphics 2020)

Zilin Xu, Qiang Sun, Lu Wang, Yanning Xu, Beibei Wang

Non-first author papers:

Ray-aligned Occupancy Map Array for Fast Approximate Ray Tracing

2023

Eurographics Symposium on Rendering 2023 (CGF track)

Zheng Zeng, Zilin Xu, Lu Wang, Lifan Wu, Ling-Qi Yan

Neural Complex Luminaires: Representation and Rendering

2021

ACM Transactions on Graphics (Proceedings of SIGGRAPH 2021)

Junqiu Zhu, Yaoyi Bai, Zilin Xu, Steve Bako, Edgar Velázquez-Armendáriz, Lu Wang, Pradeep Sen, Miloš Hašan, Ling-Qi Yan

PROFESSIONAL SERVICES

Conference reviewer: SIGGRAPH, SIGGRAPH Asia, Eurographics (EG), Pacific Graphics (PG)

Journal reviewer: Transactions on Graphics (TOG), Transactions on Visualization and Computer Graphics (TVCG),

Computer Graphics Forum (CGF)

SELECTED AWARDS

National Scholarship ($< 1\%$)	2022
Shandong University Chancellor's Scholarship Nomination (< 0.1%)	2022
Outstanding Graduate Student Award	2022
Weichai Outstanding Graduate Student Scholarship (< 1%)	2021
First Prize Scholarship of Shandong University	2021