

LIWEN WU

liw026@ucsd.edu

EDUCATION

University of California San Diego

Ph.D. in CSE

September 2022 - Present

Advisor: Ravi Ramamoorthi

University of Illinois at Urbana-Champaign

M.S. in Computer Science

August 2021 - May 2022

B.S. in Computer Science with Highest Honors, Minor in Math

August 2017 - May 2021

Overall GPA: 4.0/4.0

PUBLICATION

Ziyang Fu, Yash Belhe, Haolin Lu, **Liwen Wu**, Bing Xu, Tzu-Mao Li. BSDF importance sampling using a diffusion model. In *SIGGRAPH Asia*, 2024.

Liwen Wu, Sai Bi, Zexiang Xu, Fujun Luan, Kai Zhang, Iliyan Georgiev, Kalyan Sunkavalli, and Ravi Ramamoorthi. Neural Directional Encoding for Efficient and Accurate View-Dependent Appearance Modeling. In *CVPR*, 2024 (highlight; final scores: 5,5,5).

Isabella Liu, Linghao Chen, Ziyang Fu, **Liwen Wu**, Haian Jin, Zhong Li, Chin Ming Ryan Wong, Yi Xu, Ravi Ramamoorthi, Zexiang Xu, and Hao Su. OpenIllumination: A Multi-Illumination Dataset for Inverse Rendering Evaluation on Real Objects. In *NeurIPS*, 2023.

Liwen Wu, Rui Zhu, Mustafa B Yaldiz, Yin hao Zhu, Hong Cai, Janarбек Matai, Fatih Porikli, Tzu-Mao Li, Manmohan Chandraker, and Ravi Ramamoorthi. Factorized Inverse Path Tracing for Efficient and Accurate Material-Lighting Estimation. In *ICCV*, 2023 (oral).

Bing Xu, **Liwen Wu**, Milos Hasan, Fujun Luan, Iliyan Georgiev, Zexiang Xu, and Ravi Ramamoorthi. NeuSample: Importance Sampling for Neural Materials. In *SIGGRAPH*, 2023.

Liwen Wu, Jae Yong Lee, Anand Bhattad, Yu-Xiong Wang, and David Forsyth. Diver: Real-time and accurate neural radiance fields with deterministic integration for volume rendering. In *CVPR*, 2022 (oral; **best paper finalist**).

RESEARCH INTERESTS

Neural Rendering, Inverse Rendering, Neural Materials, 3D Reconstruction, 3D Vision

RESEARCH EXPERIENCE

Adobe Research

Research intern

San Jose, USA

June 2023 - December 2023

Research intern

June 2024 - Present

ACADEMIC SERVICE

Reviewer of CVPR 2023, 2024, ECCV 2024, SIGGRAPH 2024, SIGGRAPH Asia 2024

INVITED TALKS

UCSD Visual Computing Retreat, June 2024

AWARDS

UIUC Bronoze Tablet Award

2022