

Youming Deng

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Education

Cornell University

Doctor of Philosophy in Computer Science

Ithaca, New York, United States

Aug. 2023 - May. 2028 (Expected)

Wuhan University

Bachelor of Engineering in Spatial Informatics & Digitalized Technology
GPA: 91.5/100

Wuhan, Hubei, China

Sep. 2019 - Jun. 2023

Research Experience

Research Engineer at Cornell University

Advisor: Professor Abe Davis

Ithaca, New York, United States

Aug. 2023 - Present

- We are trying to design interactive methods to guide the diffusion model based on user preferences
- We are trying to extend 3d Gaussian to dynamics or “in the wild” scenes

Research Engineer at EPFL

Advisor: Professor Wenzel Jakob

Rte Cantonale, Lausanne, Switzerland

Apr. 2023 - Aug. 2023

- We develop a conversion tool for different scene representations in Blender and Mitsuba3
- We added new features (e.g., color ramp) to Mitsuba3 that are fully compatible with Blender

Research Intern at UC Merced

Advisor: Professor Ming-Hsuan Yang

Remote Intern

Apr. 2022 - Aug. 2023

- We present a method for high-fidelity geometry, materials, and illumination estimation
- We develop an efficient sphere tracing algorithm for implicit SDF
- We handle non-differentiability and model indirect lighting to improve environmental illumination

Research Assistant at Wuhan University

Advisor: Professor Yansheng Li

Wuhan, Hubei, China

Jun. 2021 - Apr. 2022

- We propose a coarse-to-fine training framework for Scene Graph Generation (SGG)
- The framework can efficiently handle the extreme long-tail effect in SGG

Publications

Physics-based Indirect Illumination for Inverse Rendering

3DV 2024

Youming Deng, Xueting Li, Sifei Liu, Ming-Hsuan Yang

Project Page / arXiv / Code

Hierarchical Memory Learning for Fine-Grained Scene Graph Generation

ECCV 2022

Youming Deng, Yansheng Li, Yongjun Zhang, Xiang Xiang, Jian Wang, Jingdong Chen, Jiayi Ma

arXiv / Code

Technical skills

Programming Languages/Tools Frameworks

C, C++, Java, Javascript, Python, L^AT_EX
PyTorch, Keras, Dr.jit, Mitsuba, TensorFlow

Language proficiencies

Chinese Native speaker
English Proficient (TOEFL 106)