

# YOUNMING DENG

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<https://denghilbert.github.io>

EDUCATION	Cornell University <i>Ph.D. in Computer Science</i> <ul style="list-style-type: none"><li>• Advisor: Steve Marschner</li><li>• Research area: Graphics and 3D Vision</li></ul>	Ithaca, USA 2023 - present
	Wuhan University <i>B.E. in Information and Digital Technology</i> <ul style="list-style-type: none"><li>• Advisor: Yansheng Li</li></ul>	Wuhan, China 2019 - 2023
PUBLICATIONS	<ol style="list-style-type: none"><li>1. Youming Deng, Songyou Peng, Junyi Zhang, Kathryn Heal, Tiancheng Sun, John Flynn, Steve Marschner, Lucy Chai. Selfi: Self Improving Reconstruction Engine via 3D Geometric Feature Alignment. In <i>arXiv</i>, 2025.</li><li>2. Xinhao Liu, Jiaqi Li, Youming Deng, Ruxin Chen, Yingjia Zhang, Yifei Ma, Li Guo, Yiming Li, Jing Zhang, Chen Feng. Wanderland: Geometrically Grounded Simulation for Open-World Embodied AI. In <i>arXiv</i>, 2025.</li><li>3. Hexu Zhao, Xiaoteng Liu, Xiwen Min, Jianhao Huang, Youming Deng, Yanfei Li, Ang Li, Jinyang Li, Aurojit Panda. Scaling Point-based Differentiable Rendering for Large Scale 3D Reconstruction. In <i>arXiv</i>, 2025.</li><li>4. Youming Deng, Wenqi Xian, Guandao Yang, Leonidas Guibas, Gordon Wetzstein, Steve Marschner, Paul Debevec. Self-Calibrating Gaussian Splatting for Large Field-of-View Reconstruction. In <i>ICCV</i>, 2025.</li><li>5. Yansheng Li, Linlin Wang, Tingzhu Wang, Xue Yang, Junwei Luo, Qi Wang, Youming Deng, Wenbin Wang, Xian Sun, Haifeng Li, Bo Dang, Yongjun Zhang, Yi Yu, Junchi Yan. Star: A first-ever dataset and a large-scale benchmark for scene graph generation in large-size satellite imagery. <i>TPAMI</i>, 2024.</li><li>6. Youming Deng, Xuetong Li, Sifei Liu, Ming-Hsuan Yang. Physics-based Indirect Illumination for Inverse Rendering. In <i>3DV</i>, 2024.</li><li>7. Youming Deng, Yansheng Li, Yongjun Zhang, Xiang Xiang, Jian Wang, Jingdong Chen, Jiayi Ma. Hierarchical Memory Learning for Fine-Grained Scene Graph Generation. In <i>ECCV</i>, 2022.</li></ol>	
INTERNSHIP	Student Researcher at Google   Los Angeles, USA <ul style="list-style-type: none"><li>• Mentor: Lucy Chai</li><li>• Project: efficient and robust feed-forward structure-from-motion, general novel view synthesis pipeline from uncalibrated imaginary</li></ul>	2025.05 - Present

RESEARCH	<b>Research Assistant at Cornell   Ithaca, USA</b>	2023.08 - Present
	<ul style="list-style-type: none"> <li>• Advisor: Steve Marschner and Paul Debevec</li> <li>• Project: self-calibration pipeline for large field of view camera reconstruction</li> </ul>	
	<b>Research Engineer at EPFL   Lausanne, Switzerland</b>	2023.04 - 2023.08
	<ul style="list-style-type: none"> <li>• Advisor: Wenzel Jakob</li> <li>• Project: conversion support between Blender and Mitsuba3 with color ramping</li> </ul>	
	<b>Visiting Student at UC Merced   Remote</b>	2022.04 - 2023.08
	<ul style="list-style-type: none"> <li>• Advisor: Ming-Hsuan Yang</li> <li>• Project: inverse rendering pipeline for non-differentiability lighting, material estimation, and accurate surface reconstruction</li> </ul>	
	<b>Research Assistant at Wuhan University   Wuhan, China</b>	2021.06 - 2022.04
	<ul style="list-style-type: none"> <li>• Advisor: Yansheng Li</li> <li>• Project: coarse-to-fine training framework for Scene Graph Generation</li> </ul>	
SKILLS	<b>Languages:</b> Chinese, English <b>Programming:</b> Python, C++, CUDA <b>Framework:</b> Pytorch, Jax, Mitsuba	
ACADEMIC SERVICES	<b>Reviewers for SIGGRAPH, SIGGRAPH Asia</b> <b>CVPR, ECCV, ICCV</b> <b>Invited Talks</b> World Lab 2nd Workshop on Neural Fields Beyond Conventional Cameras	