# Youming Deng

ymdeng@cs.cornell.edu
https://denghilbert.github.io

## Education

**Cornell University** — Ithaca, USA
*Ph.D. in Computer Science* — 2023 - present
- Advisor: Steve Marschner
- Research area: Graphics and 3D Vision

**Wuhan University** — Wuhan, China
*B.E. in Information and Digital Technology* — 2019 - 2023
- Advisor: Yansheng Li

## Publications

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 *arXiv*, 2025.
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 *arXiv*, 2025.
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 *arXiv*, 2025.
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 *ICCV*, 2025.
5. Wei Chen, Lorenzo Bruzzone, Bo Dang, Yuan Gao, **Youming Deng**, Jin-Gang Yu, Liangqi Yuan, Yansheng Li. REST: Holistic Learning for End-to-End Semantic Segmentation of Whole-Scene Remote Sensing Imagery. *TPAMI*, 2025.
6. 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. *TPAMI*, 2024.
7. **Youming Deng**, Xueting Li, Sifei Liu, Ming-Hsuan Yang. Physics-based Indirect Illumination for Inverse Rendering. In *3DV*, 2024.
8. **Youming Deng**, Yansheng Li, Yongjun Zhang, Xiang Xiang, Jian Wang, Jingdong Chen, Jiayi Ma. Hierarchical Memory Learning for Fine-Grained Scene Graph Generation. In *ECCV*, 2022.

## Internship

**Student Researcher at Google** | Los Angeles, USA — 2025.05 - Present
- Mentor: Lucy Chai
- Project: efficient and robust feed-forward structure-from-motition, general novel view synthesis pipeline from uncalibrated imaginary

## Research

**Research Assistant at Cornell** | Ithaca, USA 2023.08 - Present

- Advisor: Steve Marschner and Paul Debevec
- Project: self-calibration pipeline for large field of view camera reconstruction

**Research Engineer at EPFL** | Lausanne, Switzerland 2023.04 - 2023.08

- Advisor: Wenzel Jakob
- Project: conversion support between Blender and Mitsuba3 with color ramping

**Visiting Student at UC Merced** | Remote 2022.04 - 2023.08

- Advisor: Ming-Hsuan Yang
- Project: inverse rendering pipeline for non-differentiability lighting, material estimation, and accurate surface reconstruction

**Research Assistant at Wuhan University** | Wuhan, China 2021.06 - 2022.04

- Advisor: Yansheng Li
- Project: coarse-to-fine training framework for Scene Graph Generation

## Skills

**Languages:** Chinese, English

**Programming:** `Python`, `C++`, `CUDA`

**Framework:** `Pytorch`, `Jax`, `Mitsuba`

## Academic Services

**Reviewers for** SIGGRAPH, SIGGRAPH Asia
CVPR, ECCV, ICCV

**Invited Talks** World Lab
2nd Workshop on Neural Fields Beyond Conventional Cameras