

PUBLICATIONS

- Neural-PBIR Reconstruction of Shape, Material, and Illumination** *under review*
 Cheng Sun*, Guangyan Cai*, Zhengqin Li, Kai Yan, Cheng Zhang, Carl Marshall, Jia-Bin Huang, Shuang Zhao, Zhao Dong
[\[Paper\]](#), [\[Code\]](#)
- Data Efficient 3D Learner via Knowledge Transferred from 2D Model** *ECCV 2022*
 Ping-Chung Yu, Cheng Sun, Min Sun
[\[Paper\]](#), [\[Code\]](#)
- Multiview Regenerative Morphing with Dual Flows** *ECCV 2022*
 Chih-Jung Tsai, Cheng Sun, Hwann-Tzong Chen
[\[Paper\]](#), [\[Code\]](#), [\[Project page\]](#)
- Direct Voxel Grid Optimization: Super-fast Convergence for Radiance Fields Reconstruction** *CVPR 2022 (oral)*
 Cheng Sun, Min Sun, Hwann-Tzong Chen
[\[Paper\]](#), [\[Code\]](#), [\[Project page\]](#)
 3D scene reconstruction from multiple images. Achieved state-of-the-art quality with more than 100 times speedup in optimization time (10–20+ hrs to 5 mins per scene).
- Specialize and Fuse: Pyramid Output Representation for Semantic Segmentation** *ICCV 2021*
 Chi-Wei Hsiao*, Cheng Sun*, Hwann-Tzong Chen, Min Sun
[\[Paper\]](#)
- HoHoNet: 360 Indoor Holistic Understanding with Latent Horizontal Features** *CVPR 2021*
 Cheng Sun, Min Sun, Hwann-Tzong Chen
[\[Paper\]](#), [\[Code\]](#)
- Indoor Panorama Planar 3D Reconstruction via Divide and Conquer** *CVPR 2021 (oral)*
 Cheng Sun, Chi-Wei Hsiao, Ning-Hsu Wang, Min Sun, Hwann-Tzong Chen
[\[Paper\]](#), [\[Code\]](#)
- HorizonNet: Learning Room Layout with 1D Representation and Pano Stretch Data Augmentation** *CVPR 2019*
 Cheng Sun, Chi-Wei Hsiao, Min Sun, Hwann-Tzong Chen
[\[Paper\]](#), [\[Code\]](#)
 Room layout reconstruction from a 360 image. Proposed a novel layout format which now have been widely adopted in this task.

EDUCATION

- National Tsing Hua University** *Sep 2018 - Sep 2023 (expected)*
Ph.D. in Institute of Information System and Application
 Advisors: Prof. Hwann-Tzong Chen and Prof. Min Sun.
 GPA: 4.28 / 4.3
- National Chiao Tung University** *Aug 2014 - Jan 2018*
B.S. in Computer Science
 GPA: 3.87 / 4.0

EXPERIENCE

- Computer Vision Research Intern, Aeolus Robotics** *Feb 2023 - now*
 Indoor 3D reconstruction from robot sensor / Generic 3D semantic and instance segmentation
- Research Scientist Intern, Meta Reality Labs** *June 2022 - Dec 2022*
 Object 3D reconstruction from color video / PBR material estimation / Lighting estimation

AWARD

- Phi Tau Phi Scholastic Honor Society Honorary Membership** *Apr 2023*
- Google Conference Scholarships** *May 2022*
- ASUS Intelligent Cloud Services (AICS) Ph.D. Scholarship** *Sep 2020 - Apr 2022*
- Novatek M.S. Scholarship** *Aug 2019 - July 2020*