

SELECTED PUBLICATIONS

Neural-PBIR Reconstruction of Shape, Material, and Illumination ICCV 2023
Cheng Sun*, Guangyan Cai*, Zhengqin Li, Kai Yan, Cheng Zhang, Carl Marshall, Jia-Bin Huang, Shuang Zhao, Zhao Dong [\[Paper\]](#), [\[Code\]](#)

Hashing Neural Video Decomposition with Multiplicative Residuals in Space-Time ICCV 2023
Cheng-Hung Chan, Cheng-Yang Yuan, Cheng Sun, Hwann-Tzong Chen [\[Paper\]](#), [\[Code\]](#)

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 - Aug 2023
Ph.D. in Institute of Information System and Application GPA: 4.28 / 4.3
Advisors: Prof. Hwann-Tzong Chen and Prof. Min Sun.

National Chiao Tung University Aug 2014 - Jan 2018
B.S. in Computer Science GPA: 3.87 / 4.0

EXPERIENCE

Research Scientist, NVIDIA Research Taiwan Oct 2023 - now

Computer Vision Research Intern, Aeolus Robotics Feb 2023 - Aug 2023

Research Scientist Intern, Meta Reality Labs June 2022 - Dec 2022

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