Di Chang

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EDUCATION

University of Southern California　　　　　　　　　　　　　　　　Los Angeles, California, USA
Doctor of Philosophy in Computer Science　　　　　　　　　　Aug. 2022 – May. 2027(Anticipated)
Technical University of Munich　　　　　　　　　　　　　　　　　Munich, Bavaria, Germany
Bachelor of Science in Informatics　　　　　　　　　　　　　　　　　　Sep. 2021 – Jul. 2022
- cGPA: 1.2/1.0

Dalian University of Technology　　　　　　　　　　　　　　　　　Dalian, Liaoning, China
Bachelor of Engineering in Electronic Information Engineering　　　　　Sep.2018 – Jun. 2021
- cGPA: 3.93/4.0

PUBLICATIONS

RC-MVSNet: Unsupervised Multi-View Stereo with Neural Rendering　　　　　　　ECCV
Di Chang, Aljaž Božič, Tong Zhang, Qingsong Yan, Yingcong Chen, Sabine Süsstrunk, Matthias Nießner　　2022
- We propose to use NeRF-like rendering to solve ambiguity of correspondences among views in unsupervised multi view stereo, caused by non-Lambertian surfaces and occlusion.
- We achieve state-of-the-art accuracy among all unsupervised MVS methods until now.

Generalized Binary Search Network for Highly-Efficient Multi-View Stereo　　　　CVPR
Zhenxing Mi, Di Chang, Dan Xu　　2022
- We formulate multi view stereo as a binary search problem, and accordingly design three mechanisms to respectively handle classification errors, deal with out-of-range samples and decrease the training memory.
- We achieve state-of-the-art accuracy, and second least memory consumption among all learning-based MVS methods until now.

EXPERIENCE

Research Intern(Remote Collaboration)　　　　　　　　　　　　　　Jun. 2022 – Present
Wang's Group, UCSD　　　　　　　　　　　　　　　*Mentor: Professor Xiaolong Wang*
- Researching on 3D Vision, specifically Video Synthesis with Diffusion Models

Summer@EPFL Program　　　　　　　　　　　　　　　　　　　Jun. 2022 – Aug. 2022
Funded by IVRL, École Polytechnique Fédérale de Lausanne　Mentor: Professor Sabine Süsstrunk and Dr. Tong Zhang
- Researching on 3D Vision, specifically Video Synthesis with Diffusion Models

Guided Research　　　　　　　　　　　　　　　　　　　　　　Mar. 2021 – Jun. 2022
3D AI Group, TUM　　　　　　　　　　　　　　　　　*Mentor: Professor Angela Dai*
- Researched on 3D Vision, specifically Single-View Category-level NeRF

Guided Research　　　　　　　　　　　　　　　　　　　　　　Sep. 2021 – Mar. 2022
Visual Computing and 3D AI Group, TUM　　*Mentor: Professor Matthias Niessner and M.Sc Aljaž Božič*
- Researched on 3D Vision, specifically Unsupervised Multi-View Geometry

Undergraduate Research Intern　　　　　　　　　　　　　　　　Mar. 2021 – Sep. 2021
Multimedia Lab, The Hong Kong University of Science and Technology　　*Mentor: Professor Dan Xu*
- Researched on 3D Vision, specifically Multi-View Stereo

ACADEMIC SERVICE

ECCV 2022　　　　　　　　　　　　　　　　　　　　　　　Conference Reviewer
NeurIPS 2022　　　　　　　　　　　　　　　　　　　　　　Conference Reviewer

TEACHING

CSCI 103L Introduction to Programming　　　　　　　　　　　　　　　　USC
Teaching Assistant　　　　　　　　　　　　　　　　　　　　　　　*2022 Fall*

SELECTED COURSES

Introduction to Deep Learning(TUM)　　**Deep Learning for 3D Perception(TUM)**
3D Scanning and Spatial Learning(TUM)　　**3D Graphics and Rendering(USC)**

SKILLS

Programming Languages: Python(Preferred and proficient), MATLAB,C/C++,Html
Frameworks: PyTorch, Keras, mmdetection