

Anpei CHEN (陈安沛)

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Birthday: Jan 10 1994



ABOUT ME

I'm an [ELLIS](#) Postdoc, jointly supervised by Prof. [Andreas GEIGER](#) (Universität Tübingen) and Prof. [Siyu TANG](#) (ETH Zürich). I obtained my Ph.D at the Chinese Academy of Sciences in 2022, working with Prof. [Jingyi Yu](#). During this time, I have been an intern at Disney Research (Los Angeles, USA) and [Hao Su's](#) Research Lab (University of California San Diego, USA). Before that, I received my Bachelor's degree in 2016 from Xidian University.

My research interests lie at the intersection of computer graphics and vision, including geometric modeling/reconstruction, realistic appearance rendering, and controllable image synthesis. I have a great passion on new things and ideas, my goal is to create magic and happiness. Outside my research, I love photography, badminton, and movie appreciation.

EDUCATION

- AUG 2022 ELLIS PostDoc at **ETH Zürich** and **University of Tübingen**
- JAN 2022 PhD candidate of Computer Science at **ShanghaiTech University**, Shanghai, [LAB](#)
- JULY 2018 Master of Computer Science at **Chinese Academy of Sciences**, Shanghai, CHINA
Major: Computer Vision & Graphics & Photography
Course: Computer Vision I & II, Computer Graphics II, Machine Learning
Deep Learning, SLAM, Convex Optimization, Computer Photography
TA: Algorithm Analysis Fall 2016
- JULY 2016 Bachelor Degree in Electronic Information Science and Technology
Xidian University, China
Awards: Special Prize of 26th Starfire Cup in Xidian University
The 11th College Outstanding Students of Science and Technology
Third Prize of 2015 National College Student Challenge Cup Academic Competition

PATENTS

- An Anti-motion sickness seat and method for seat balance adjustment (CN104972932A)
- A wearable electromyography arm ring (CN104586391A)
- A deep learning based surface light field rendering method for mobile device (CN109829967A)
- Method for Real-Time Rendering of Giga-Pixel Images (US Patent: 16970632)

ACADEMIC EXPERIENCE

WINTER 2020 1 YEAR	Research Assistant at UCSD SU LAB Advisor: Hao Su and Zexiang Xu Working on multi-view stereo reconstruction and neural rendering. More specifically, our goal is to design a fast generalizable radiance field reconstruction from Multi-View Stereo that we can reason new scenes just from a few sparse image samples.
WINTER 2018 4 MONTHS	Intern at DISNEY RESEARCH LA, <i>Lab Associate</i> Mentor: Kenny Mitchell Worked on global illumination rendering and human-to-cartoon body reconstruction system. More specifically, attempt to speed up path tracing process via optimizing the light path sampling algorithm according to its' temporal ray samples. I also took part in a human-to-cartoon project and in charge of recovering dynamic facial wrinkles. We submitted two patents during the internship.
SUMMER 2016 3 MONTHS	Intern at DGENE, <i>Engineer</i> DGene Worked on virtual reality device, object reconstruction and rendering. Stereo Video player on HTC Vive, fast refocusing algorithm with RGBD panorama input. And preparing a demo of digitalis products (Tang San Cai, bottle and handBag etc.) for Alibaba Buy+Act . Our solution is demonstrated on the conference due to its' high data compression performance (2000 : 1) and we also published a paper on I3D'18.

COMMUNITY SERVICES

Area Chair: CVPR 2023/24, 3DV 24

Journal reviewer: TOG, TIP, TPAMI, INFFUS ...

Conference reviewer: SIGGRAPH, SIGGRAPH Asia, ICCV, ICLR, NeurIPS, AAAI ...

SELECTED PUBLICATIONS

- Dictionary Fields: Learning a Neural Basis Decomposition
Anpei Chen, Zexiang Xu, Xinyue Wei, Siyu Tang, Hao Su, Andreas Geiger
(SIGGRAPH'23 Journal Track) [project page] [paper] [code]
- SDFStudio: A Unified Framework for Surface Reconstruction
Zehao Yu, **Anpei Chen**, Bozidar Antic, Songyou Peng, Apratim Bhattacharyya, Michael Niemeyer, Siyu Tang, Torsten Sattler, Andreas Geiger
(OpenSource Project) [project page]
- TensorRF: Tensorial Radiance Fields
Anpei Chen*, Zexiang Xu*, Andreas Geiger, Jingyi Yu, Hao Su
Most influential ECCV'22 papers 2
(ECCV'22) [project page] [paper] [code] [NeRFStudio]
- MVNeRF: Fast Generalizable Radiance Field Reconstruction from Multi-View Stereo
Anpei Chen*, Zexiang Xu*, Fuqiang Zhao, Xiaoshuai Zhang, Fanbo Xiang, Jingyi Yu, Hao Su
(ICCV'21) [project page] [paper] [code]
- GNeRF: GAN-based Neural Radiance Field without Posed Camera
Quan Meng, **Anpei Chen**, Haimin Luo, Minye Wu, Hao Su, Lan Xu, Xuming He, Jingyi Yu
(ICCV'21 (Oral)) [paper] [code]

- SofGAN: A Portrait Image Generator with Dynamic Styling
Anpei Chen*, Ruiyang Liu*, Ling Xie, Zhang Chen, Hao Su and Jingyi Yu
([Trans. on Graphics](#)) [[project page](#)] [[code](#)]
- A Neural Rendering Framework for Free-Viewpoint Relighting
Zhang Chen, **Anpei Chen**, Guli Zhang, Chengyuan Wang, Yu Ji, Kiriakos N. Kutulakos, Jingyi Yu
([CVPR'20](#)) [[paper](#)] [[code](#)]
- Photo-Realistic Facial Details Synthesis From Single Image
Anpei Chen, Zhang Chen, Guli Zhang, Ziheng Zhang, Kenny Mitchell, Jingyi Yu
([ICCV'19 Oral](#)) [[paper](#)] [[code](#)] [[slides](#)] [[video](#)]
- Learning Semantics-aware Distance Map with Semantics Layering Network for Amodal Instance Segmentation
Ziheng Zhang*, **Anpei Chen***, Ling Xie, Jingyi Yu, Shenghua Gao
([ACM MM'19](#)) [[paper](#)] [[code](#)]
- Deep Surface Light Fields
Anpei Chen, Minye Wu, Yingliang Zhang, Nianyi Li, Jie Lu, Shenghua Gao and Jingyi Yu
([I3D'18](#)) [[paper](#)] [[video](#)] [[slides](#)]