PENG DAI

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EDUCATION

The University of Hong Kong (HKU)   2020 - 2024.09 (Expected)
Ph.D. in Electrical and Electronic Engineering (Topic: Computer Vision), Supervisor: Prof.Xiaojuan Qi

University of Electronic Science and Technology of China (UESTC)   2017 - 2020
Master in Electronic Engineering (Topic: Image Processing), Supervisor: Prof.Shuaicheng Liu and Prof.Bing Zeng

University of Electronic Science and Technology of China (UESTC)   2013 - 2017
Bachelor in Electronic Engineering

PUBLICATIONS

[1] **Hybrid Neural Rendering for Large-Scale Scenes with Motion Blur**
Peng Dai*, Yinda Zhang*, Xin Yu, Xiaoyang Lyu, Xiaojuan Qi (The IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2023)

[2] **Video Demoiréing with Relation-Based Temporal Consistency**
Peng Dai, Xin Yu, Lan Ma, Baoheng Zhang, Jia Li, Wenbo Li, Jiajun Shen, Xiaojuan Qi (The IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2022)

[3] **Neural Point Cloud Rendering via Multi-Plane Projection**
Peng Dai*, Yinda Zhang*, Zhuwen Li*, Shuaicheng Liu, Bing Zeng (The IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2020)

[4] **PBR-Net: Imitating Physically Based Rendering Using Deep Neural Network**
Peng Dai, Zhuwen Li, Yinda Zhang, Shuaicheng Liu, Bing Zeng (IEEE Transactions on Image Processing, TIP 2020)

[5] **DreamStone: Image as a Stepping Stone for Text-Guided 3D Shape Generation**
Zhengzhe Liu, **Peng Dai**, Ruihui Li, Xiaojuan Qi, Chi-Wing Fu (IEEE Transactions on Pattern Analysis and Machine Intelligence, TPAMI 2023)

[6] **Taming Texture Generation on 3D Meshes with Point-UV Diffusion**
Xin Yu, **Peng Dai**, Wenbo Li, Lan Ma, Zhengzhe Liu, Xiaojuan Qi (The International Conference on Computer Vision, ICCV 2023, Oral)

[7] **Learning A Room with the Occ-SDF Hybrid: Signed Distance Function Mingled with Occupancy Aids Scene Representation**
Xiaoyang Lyu, **Peng Dai**, Zizhang Li, Dongyu Yan, Yi Lin, Yifan Peng, Xiaojuan Qi (The International Conference on Computer Vision, ICCV 2023)

[8] **ISS: Image as Stetting Stone for Text-Guided 3D Shape Generation**
Zhengzhe Liu, **Peng Dai**, Ruihui Li, Xiaojuan Qi, Chi-Wing Fu (The International Conference on Learning Representations, ICLR 2023, Spotlight.)

[9] **Towards Efficient and Scale-Robust Ultra-High-Definition Image Demoireing**
Xin Yu, **Peng Dai**, Wenbo Li, Lan Ma, Jiajun Shen, Jia Li, Xiaojuan Qi (The European Conference on Computer Vision, ECCV 2022)

[10] **Neural-Based Rendering and Application**
Peng Dai (ACM Multimedia, MM 2021, Doctoral Symposium)

PREPRINTS

[1] **RenderAug: Data Augmentation with Render-based Image Relighting for Indoor Scene Parsing**
Peng Dai, Mingqiao Ye, Zhe Wang, Xiaojuan Qi

EXPERIENCE

SenseTime, Shenzhen
Research Intern   Aug 2020 - Dec 2020

HONORS

Hong Kong Postgraduate Scholarship	2020 - 2024
Outstanding Graduation Thesis	2020
Outstanding Graduate	2017
Meritorious Winner in Mathematical Contest In Modeling	2016

TEACHING ASSISTANT

ELEC4245 Digital Image Processing	2021-2022, fall
ENGG1330 Computer Programming I	2020-2021, fall

SKILLS

Python, Pytorch, Latex, Mitsuba, Blender

CONFERENCE/JOURNAL REVIEWER

CVPR, ICCV, NeurIPS, ICRA, BMVC, IJCV, TCSVT