Qiyu Dai

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Education

09/2019 - **Peking University**, Beijing, China

06/2022 M.Eng. in Computer Technology, School of Software and Microelectronics

Advisor: Prof. He Wang, Prof. Qi Jing

09/2015 - Wuhan University, Wuhan, China

06/2019 Bachelor in Energy Chemical Engineering, School of Power and Mechanical

Engineering

Double Bachelor in Computer Science, School of Computer Science

Advisor: Prof. Qin Zou

Research Interests

Neural Scene Representations, Neural Rendering, 3D Vision, Computer Graphics

Publications

ICRA 2023 GraspNeRF: Multiview-based 6-DoF Grasp Detection for Transparent and Specular Objects Using Generalizable NeRF

 $\mathbf{Qiyu}\ \mathbf{Dai^*},\ \mathrm{Yan}\ \mathrm{Zhu^*},\ \mathrm{Yiran}\ \mathrm{Geng},\ \mathrm{Ciyu}\ \mathrm{Ruan},\ \mathrm{Jiazhao}\ \mathrm{Zhang},\ \mathrm{He}\ \mathrm{Wang}$

IEEE International Conference on Robotics and Automation, 2023

ECCV 2022 Domain Randomization-Enhanced Depth Simulation and Restoration for Perceiving and Grasping Specular and Transparent Objects

Qiyu Dai*, Jiyao Zhang*, Qiwei Li, Tianhao Wu, Hao Dong, Ziyuan Liu, Ping Tan, He Wang

European Conference on Computer Vision, 2022

ACM MM Edit Like A Designer: Modeling Design Workflows for Unaligned Fashion 2021 Editing

Qiyu Dai, Shuai Yang, Wenjing Wang, Wei Xiang, Jiaying Liu *ACM International Conference on Multimedia*, 2021

IEEE TVT Robust Lane Detection From Continuous Driving Scenes Using Deep Neural 2019 Networks

Qin Zou, Hanwen Jiang, **Qiyu Dai**, Yuanhao Yue, Long Chen, Qian Wang *IEEE Transactions on Vehicular Technology*, 2019

^{*} denotes equal contribution

Research Experience

11/2022 - Beijing Academy of Artificial Intelligence

Present Research Intern, Embodied AI Center

Advisor: Prof. He Wang Research: NeRF for Robotics

03/2021 - Center on Frontiers of Computing Studies, Peking University

Present Research Assistant, Embodied Perception and InteraCtion (EPIC) Lab

Advisor: Prof. He Wang

Research: Sensor Simulation, Depth Restoration, Grasping, NeRF

08/2020 - Wangxuan Institute of Computer Technology, Peking University

03/2021 Research Assistant, Spatial and Temporal Restoration, Understanding and Compression

Team (STRUCT)

Advisor: Prof. Jiaying Liu

Research: Image Generation and Editing

10/2017 - School of Computer Science, Wuhan University

06/2019 Undergraduate Researcher, Machine Vision and Robotics Lab

Advisor: Prof. Qin Zou

Research: Road Lane Detection

Services

Reviewers CVPR 2022, ECCV 2022, CVPR 2023, ICCV 2023

Invited Talks

08/2022 Domain Randomization-Enhanced Depth Simulation and Restoration for Perceiving and Grasping Specular and Transparent Objects

ECCV 2022 China Pre-Conference, China Society of Image and Graphics

Awards and Honors

- 2022 Outstanding Master's Thesis, Peking University
- 2021 Social Work Award, Peking University
- 2020 Merit Student Award, Peking University
- 2019 Excellent Graduate Award, Wuhan University
- 2018 The Beijing CM Scholarship, Wuhan University
- 2017 The Goaland Scholarship, Wuhan University
- 2017 Merit Student Award, Wuhan University
- 2016 The Cnhili Scholarship, Wuhan University
- 2016 The Relations Instruments Scholarship, Wuhan University
- 2016, 2018 Excellent Student Award, Wuhan University
- 2016 2018 Excellent Student Scholarship, Wuhan University