Zhiqiang Yan

yanzq@njust.edu.cn

homepage

EDUCATION EXPERIENCE

2020.09 – 2024.06: Nanjing University of Science and Technology (Nanjing, China)
Ph.D. Candidate of Computing (Supervisor: Prof. **Jian Yang** and **Jun Li**)

2014.09 – 2018.06: Nanjing University of Science and Technology (Nanjing, China)
B.S. of Automation

RESEARCH INTEREST

My research interests lie in computer vision and machine learning, with a focus on depth-related tasks: depth completion, depth estimation, and depth super-resolution. These tasks are essential for 3D reconstruction, scene understanding, and autonomous driving.

FULL PUBLICATION LIST

Accepted Papers:

1. **Zhiqiang Yan**, Yuankai Lin, Kun Wang, Yupeng Zheng, Yufei Wang, Zhenyu Zhang, Jun Li, and Jian Yang. Tri-Perspective View Decomposition for Geometry-Aware Depth Completion. In ***CVPR* 24, [rank 1st on KITTI leaderboard at submission], [new dataset], [TOF system on smartphones]**

2. **Zhiqiang Yan**, Xiang Li, Kun Wang, Shuo Chen, Jun Li, and Jian Yang. Distortion and Uncertainty Aware Loss for Panoramic Depth Completion. In ***ICML* 23, [new SOTA]**

3. **Zhiqiang Yan**, Kun Wang, Xiang Li, Zhenyu Zhang, Jun Li, and Jian Yang. DesNet: Decomposed Scale-Consistent Network for Unsupervised Depth Completion. In ***AAAI* 23, [rank 1st on KITTI leaderboard (unsupervised) at submission], Oral Presentation**

4. **Zhiqiang Yan**, Kun Wang, Xiang Li, Zhenyu Zhang, Jun Li, and Jian Yang. RigNet: Repetitive Image Guided Network for Depth Completion. In ***ECCV* 22, [rank 1st on KITTI leaderboard at submission]**

5. **Zhiqiang Yan**, Xiang Li, Kun Wang, Zhenyu Zhang, Jun Li, and Jian Yang. Multi-Modal Masked Pre-Training for Monocular Panoramic Depth Completion. In ***ECCV* 22, [new task]**

6. **Zhiqiang Yan**, Kun Wang, Xiang Li, Zhenyu Zhang, Guangyu Li, Jun Li, and Jian Yang. Learning Complementary Correlations for Depth Super-Resolution with Incomplete Data in Real World. In ***TNNLS* 22, [new task]**

7. Zhengxue Wang, **Zhiqiang Yan**, and Jian Yang. SGNet: Structure Guided Network via Gradient-Frequency Awareness for Depth Map Super-Resolution. In ***AAAI 24*, [new SOTA**

on all datasets], ***Corresponding Author***

8. Kun Wang, **Zhiqiang Yan**, Huang Tian, Zhenyu Zhang, Xiang Li, Jun Li, and Jian Yang. AltNeRF: Learning Robust Neural Radiance Field via Alternating Depth-Pose Optimization. In ***AAAI 24***.

9. Kun Wang, Zhenyu Zhang, **Zhiqiang Yan**, Xiang Li, Baobei Xu, Jun Li, and Jian Yang. Regularizing Nighttime Weirdness: Efficient Self-Supervised Monocular Depth Estimation in the Dark. In ***ICCV* 21, [new task]**

Submitted Papers:

1. Zhengxue Wang*, **Zhiqiang Yan***, Ming-Hsuan Yang, Jinshan Pan, Jian Yang, Ying Tai, and Guangwei Gao. Scene Prior Filtering for Depth Map Super-Resolution. To ***ECCV* 24, [new SOTA], [large vision model priors]**, ***Corresponding Author***

2. **Zhiqiang Yan**, Xiang Li, Le Hui, Zhenyu Zhang, Jun Li, and Jian Yang. RigNet++: Semantic Assisted Repetitive Image Guided Network for Depth Completion. To ***IJCV* 24, [new SOTA]**

3. **Zhiqiang Yan**, Zhijie Shen, Xiang Li, Zhenyu Zhang, Jun Li, and Jian Yang. PanoKernel: Large Distortion-aware Kernel for Panoramic Depth Perception. To ***ICML* 24, [new backbone]**

4. **Zhiqiang Yan**, Yupeng Zheng, Xiang Li, Deng-ping Fan, Jun Li, and Jian Yang. Learnable Differencing Center for Nighttime Depth Perception. To ***Visual Intelligence 24*, [new task]**

CONFERENCE REVIEWER

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**): 2021, 2022, 2024
AAAI Conference on Artificial Intelligence (**AAAI**): 2022, 2023, 2024
International Conference on Computer Vision (**ICCV**): 2021, 2023
European Conference on Computer Vision (**ECCV**): 2022, 2024
International Conference on 3D Vision (**3DV**): 2022
Asian Conference on Computer Vision (**ACCV**): 2024

AWARDS

2022.10: Hua Wei Scholarship (**Top 1%**)
2023.10: National Scholarship (**Top 2%**)

REFERENCE

Prof. **Jian Yang**, PCA Lab, Nanjing University of Science and Technology, & Nanjing University. Email: csjyang@njust.edu.cn, Google Scholar: google scholar

Prof. **Jun Li**, PCA Lab, Nanjing University of Science and Technology. Email: junli@njust.edu.cn, Homepage: https://sites.google.com/view/junlineu/