Zhiqiang Yan

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homepage

EDUCATION EXPERIENCE

2020.09 – 2024.06: Nanjing University of Science and Technology (Nanjing, China)

Ph.D. of Computing (Supervisor: Prof. **Jian Yang** and Prof. **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 such as depth completion, depth estimation, and depth super-resolution, as well as 3D occupancy prediction. These tasks are essential for 3D reconstruction, scene understanding and autonomous driving.

FULL PUBLICATION LIST

Accepted Papers:

1. **Zhiqiang Yan**, Xiang Li, Le Hui, Zhenyu Zhang, Jun Li, and Jian Yang. RigNet++: Semantic Assisted Repetitive Image Guided Network for Depth Completion. **IJCV 25**

2. **Zhiqiang Yan**, Zhengxue Wang, Kun Wang, Jun Li, and Jian Yang. Completion as Enhancement: A Degradation-Aware Selective Image Guided Network for Depth Completion. **CVPR 25**

3. **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. **CVPR 24 Oral, [rank 1st on KITTI], [new dataset with TOF system on smartphones]**

4. **Zhiqiang Yan**, Xiang Li, Kun Wang, Shuo Chen, Jun Li, and Jian Yang. Distortion and Uncertainty Aware Loss for Panoramic Depth Completion. **ICML 23**

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

6. **Zhiqiang Yan**, Kun Wang, Xiang Li, Zhenyu Zhang, Jun Li, and Jian Yang. RigNet: Repetitive Image Guided Network for Depth Completion. **ECCV 22**

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

8. **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. **TNNLS 22, [new task]**

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

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1. Zhengxue Wang*, **Zhiqiang Yan***, Jinshan Pan, Guangwei Gao, Kai Zhang, and Jian Yang. DORNet: A Degradation Oriented and Regularized Network for Blind Depth Super-Resolution. **CVPR 25 Oral, [The first degradation model for DSR], Co-first author & Corresponding author**

2. Yuan Wu*, **Zhiqiang Yan***, Zhengxue Wang, Xiang Li, Le Hui, and Jian Yang. Deep Height Decoupling for Precise Vision-based 3D Occupancy Prediction. **ICRA 25, [new SOTA], Co-first author & Corresponding author**

3. Zhengxue Wang, **Zhiqiang Yan**, and Jian Yang. SGNet: Structure Guided Network via Gradient-Frequency Awareness for Depth Map Super-Resolution. **AAAI 24, Corresponding author**

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1. Kun Wang, **Zhiqiang Yan**, Junkai Fan, Wanlu Zhu, Xiang Li, Jun Li, Jian Yang. DCDepth: Progressive Monocular Depth Estimation in Discrete Cosine Domain. **NeurIPS 24**

2. Jiangwei Weng, **Zhiqiang Yan**, Ying Tai, Jianjun Qian, Jian Yang, Jun Li. MambaLLIE: Implicit Retinex-Aware Low Light Enhancement with Global-then-Local State Space. **NeurIPS 24**

3. 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. **AAAI 24**

4. Junkai Fan, Kun Wang, **Zhiqiang Yan**, Xiang Chen, Shangbin Gao, Jun Li, Jian Yang. Depth-Centric Dehazing and Depth-Estimation from Real-World Hazy Driving Video. **AAAI 25**

5. 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. **ICCV 21, [new task]**

Submitted Papers:

1. **Zhiqiang Yan**, Jianhao Jiao, Zhengxue Wang, Gim Hee Lee. Event-Driven Dynamic Scene Depth Completion. To **NeurIPS 25**

2. **Zhiqiang Yan**, Zhengxue Wang, Haoye Dong, Jun Li, Jian Yang, Gim Hee Lee. DuCos: Duality Constrained Depth Super-Resolution via Foundation Model. To **ICCV 25**

3. **Zhiqiang Yan**, Kun Wang, Xiang Li, Guangwei Gao, Jun Li, and Jian Yang. Tri-Perspective View Decomposition for Geometry Aware Depth Completion and Super-Resolution. To **TPAMI 24**

4. **Zhiqiang Yan**, Zhijie Shen, Xiang Li, Zhenyu Zhang, Jun Li, and Jian Yang. PanoKernel: Large Distortion-aware Kernel for Panoramic Depth Perception. To **TITS 24**

5. Zhengxue Wang*, **Zhiqiang Yan***, Ming-Hsuan Yang, Jinshan Pan, Ying Tai, and Guangwei Gao, and Jian Yang. Scene Prior Filtering for Depth Map Super-Resolution. To **TPAMI 24, Co-first author & Corresponding author**

REVIEWER

CVPR、ICCV、ECCV、NeurIPS、ICML、ICLR、AAAI、ICRA、3DV
TIP、TCSVT、TIV、PR

AWARDS

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

REFERENCE

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