School of Computer Science and Technology,
East China Normal University,
Shanghai, China
Cellphone: (+86) 137-1620-6758
Email: yxie@cs.ecnu.edu.cn
Website:
https://dmcv-ecnu.github.io/
https://faculty.ecnu.edu.cn/_s16/xy2_en_11343/main.psp
Google Schloar:
https://scholar.google.com/citations?user=RN1QMPgAAAAJ&hl=en
DBLP:
https://dblp.org/pid/157/8128-6.html

Personal

Born in August 09, 1985. Marital Status: Married.

His main research areas are computer vision and machine learning, covering various sub-fields such as low-level vision, 3D perception for autonomous driving, cross-modal perception, cross-modal learning, few-shot learning, and continual learning. He has presided over several major projects, including the National Science Fund for excellent young scholars, the National Key Research and Development Program of China. He has published and accepted over 100 academic papers in authoritative journals (IEEE TPAMI/IJCV/TIP) and top conferences (CVPR/ICCV/ECCV/ICLR/ICML/NeurIPS/AAAI), of which more than 80 are first author/corresponding author papers. His papers have been cited over 9,000 times on Google Scholar.

Research Interests

- **Machine Learning:** Continual Learning for Multi-Modal Large language Model, Multi-view/Cross-Modality Learning, Sparse Coding and Low-Rank Optimization.
- **Computer Vision and Image Processing:** Image Restoration, Point Cloud Analysis, 2D image and 3D LiDAR pretraining, Autonomous Driving.

Education Experience

- The Hong Kong Polytechnic University,   Postdoctoral,   2015.01-2017.01.
  Computer Vision and Machine Learning
  Supervisor: Lei Zhang (IEEE Fellow)

- Institute of Automation, Chinese Academy of Sciences, Ph.D, 2010.09-2013.06.
  Pattern Recognition and Intelligent System
  Supervisor: Wensheng Zhang & Dacheng Tao (IEEE Fellow)

- Xiamen University, M.S, 2007.09-2010.06.
  Computer Science and Technology
  Supervisor: Cuihua Li

- Hunan University of Science and Technology, B.S, 2003.09-2007.06.
  Computer Science and Technology
  Supervisor: Jianxun Liu

Work Experience

2011.03 - 2011.09, **_Intern_** *MultiMedia Software group, Beijing Samsung Telecom R&D Center, China*

2013.07 - 2016.10, **_Assistant Professor_** *Institute of Automation, Chinese Academy of Sciences, China*

2015.01 - 2017.01, **_Postdoctoral_** *The Department of Computing, The Hong Kong Polytechnic University, Hong Kong, China. Supervisor: Lei Zhang*

2016.11 - 2018.11, **_Associate Professor_** *Institute of Automation, Chinese Academy of Sciences, China*

2018.06 - 2019.03, **_Principle Researcher/CV Leader_** *Nanjing Institute of Advanced Artificial Intelligence, Horizon Robotic, China*

2019.04 - Now, **_Full Professor_** *School of Computer Science and Technology, East China Normal University, China*

Honors and Awards

- The National Science Fund for Excellent Young Scholars, 2022.
- Natural Science Award of Fujian Province, Second Prize, 2023.
- Second-Class of Natural Science Award, Wu Wen Jun AI Science & Technology Award, 2020.
- The Special Award Prize for Science and Technology Advancement Award, Shanghai Science and Technology Awards, 2020.

- Winner Award (Team Leader), NITRE 2020 Challenge on Nohomogeneous Dehazing, New Trends in Image Restoration and Enhancement Workshop, CVPR 2020.
- Winner Award (Team Leader), NITRE 2020 Challenge on Image Demoireing, New Trends in Image Restoration and Enhancement Workshop, CVPR 2020.
- The Hong Kong Scholar Award, the Society of Hong Kong Scholars and the China National Post-doctoral Council, 2014.
- Excellent Graduate Students of Institute of Automation, Chinese Academy of Sciences, 2013.
- Excellent Graduate Students of University in Beijing, 2013.
- Excellent Student Scholarship, Chinese Academy of Sciences, 2012.
- Excellent Graduate Students of Hunan University of Science and Technology, 2007.

Publications

Selected Journal

(* means corresponding author, # means equal contribution)

1. **Yuan Xie**, Dacheng Tao, Wensheng Zhang, Lei Zhang, Yan Liu, Yanyun Qu. On Unifying Multi-View Self-Representation for Clustering by Tensor Multi-Rank Minimization. *International Journal of Computer Vision*, vol. 126, no. 11, pp. 1157-1179, 2018.

2. Xudong Tian, Zhizhong Zhang, Cong Wang, Wensheng Zhang, Yanyun Qu, Lizhuang Ma, Zongze Wu, **Yuan Xie***, Dacheng Tao. Variational Distillation for Multi-View Learning. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, preprint, 2024.

3. Yongqiang Tang, **Yuan Xie***, Wensheng Zhang. Affine Subspace Robust Low-Rank Self-Representation: from Matrix to Tensor. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 45, no. 8, pp. 9357-9373, 2023.

4. Xiaotong Luo, Yanyun Qu*, **Yuan Xie***, Yulun Zhang, Cuihua Li, Yun Fu. Lattice Network for Lightweight Image Restoration. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 45, no. 4, pp. 4826-4842, 2023.

5. Xin Tan, Qihang Ma, Jingyu Gong, Jiachen Xu, Zhizhong Zhang, Haichuan Song, Yanyun Qu, **Yuan Xie***, Lizhuang Ma. Positive-Negative Receptive Field Reasoning for Omni-supervised 3D Segmentation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 45, no. 12, pp. 15328-15344, 2023.

6. Changqing Zhang, Huazhu Fu, Qinghua Hu, Xiaochun Chao, **Yuan Xie**, Dacheng Tao, Dong Xu. Generalized Latent Multi-View Subspace Clustering. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 42, no. 1, pp. 86-99, 2020.

7. Tianfang Sun, Zhizhong Zhang, Xin Tan, Yanyun Qu, **Yuan Xie**. Image Understands Point Cloud: Weakly Supervised 3D Semantic Segmentation via Association Learning. *IEEE Transactions on Image Processing*, Vol. 33, pp. 1838-1852, 2024.

8. Zhifeng Xie, Sen Wang, Qiucheng Yu, Xin Tan, **Yuan Xie**. CSFwinformer: Cross-Space-Frequency Window Transformer for Mirror Detection. *IEEE Transactions on Image Processing*, Vol. 33, pp. 1853-1867, 2024.

9. Zhifeng Xie, Sen Wang, Ke Xu, Zhizhong Zhang, Xin Tan, **Yuan Xie**, Lizhuang Ma. Boosting Night-Time Scene Parsing with Learnable Frequency. *IEEE Transactions on Image Processing*, Vol. 32, pp. 2386-2398, 2023.

10. **Yuan Xie**, Shuhang Gu, Yan Liu, Wangmeng Zuo, Wensheng Zhang, Lei Zhang. Weighted Schatten p-Norm Minimization for Image Denoising and Background Substraction. *IEEE Transactions on Image Processing*, pp. 4842-4857, 25(10), 2016.

11. **Yuan Xie**, Wensheng Zhang, Dacheng Tao, Wenrui Hu, Yanyun Qu, Hanzi Wang. Removing Turbulence Effect via Hybrid Total Variation Model and Deformation-Guided Kernel Regression. *IEEE Transactions on Image Processing*, pp. 4943-4958, 25(10), 2016.

12. Zhizhong Zhang#, **Yuan Xie**#, Yongqiang Tang, Wensheng Zhang, Qi Tian. Tensor Multi-task Learning for Person Re-identification. *IEEE Transactions on Image Processing*, 2019.

13. Zhizhong Zhang#, **Yuan Xie**#, Ding Li, Wensheng Zhang, Qi Tian. Learning to Align via Wasserstein for Person Re-Identification. *IEEE Transactions on Image Processing*, pp. 2463-2477, 2020.

14. Longquan Dai, Mengke Yuan, Liang Tang, **Yuan Xie**, Xiaopeng Zhang, Jinhui Tang. Interpreting and Extending the Guided Filter via Cyclic Coordinate Descent. *IEEE Transactions on Image Processing*, vol. 28, no. 2, pp. 767-778, 2019.

15. Wenrui Hu, Yehui Yang, Wensheng Zhang, **Yuan Xie**. Moving Object Detection Using Tensor-based Low-rank and Saliently Fused-sparse Decomposition. *IEEE Transactions on Image Processing*, vol. 26, no. 2, pp. 724-737, 2017.

16. Yanyun Qu, Li Lin, Fumin Shen, Chang Lu, Yang Wu, **Yuan Xie**, Dacheng Tao. Joint Hierarchical Category Structure Learning and Large-Scale Image Classification. *IEEE Transactions on Image Processing*, vol. 26, no. 9, pp. 4331-4346, 2017.

17. **Yuan Xie**, Dacheng Tao, Yanyun Qu, Wensheng Zhang. Hyper-Laplacian Regularized Multilinear Multiview Self-Representation for Clustering and Semisupervised Learning. *IEEE Transactions on Cybernetics*, vol. 50, no. 2, pp. 572-586, 2020.

18. **Yuan Xie**, Jinyan Liu, Yanyun Qu, Dacheng Tao, Wensheng Zhang, Longquan Dai, Lizhuang Ma. Robust Kernelized Multi-View Self-Representation for Subspace Clustering. *IEEE Transactions on Neural Networks and Learning Systems*, vol. 32, no. 2, 2021.

19. **Yuan Xie**, Bingqian Lin, Yanyun Qu, Cuihua Li, Wensheng Zhang, Lizhuang Ma, Dacheng Tao, Yonggang Wen. Joint Deep Multi-View Learning for Image Clustering. *IEEE Transactions on Knowledge and Data Engineering*, vol. 33, no. 11, 2021.

20. Zhizhong zhang#, **Yuan Xie**#, Wensheng Zhang, Qi Tian. Effective Image Retrieval via Multilinear Multi-Index Fusion. *IEEE Transactions on Multimedia*, vol. 21, no. 11, pp. 2878-2890, 2019.

21. Fulin Qi, Xin Tan, Zhizhong Zhang, Mingang Chen, **Yuan Xie**, Lizhuang Ma. Glass Makes Blurs: Learning the Visual Blurriness for Glass Surface Detection. *IEEE Transactions on Industrial Informatics*, Vol. 20, no. 4, pp. 6631-6641, 2024.

22. Yachao Zhang, **Yuan Xie***, Cuihua Li, Zongze Wu, Yanyun Qu*. Learning All-in Collaborative Multiview Binary Representation for Clustering. *IEEE Transactions on Neural Networks and Learning Systems*, preprint, 2024.

23. **Yuan Xie**, Yanyun Qu, Dacheng Tao, Weiwei Wu, Qiangqiang Yuan, Wensheng Zhang. Hyperspectral Image Restoration via Iteratively Regularized Weighted Schatten p-Norm Minimization. *IEEE Transactions on Geoscience and Remote Sensing*, pp. 4642-4659, 54(8), 2016.

24. **Yuan Xie**, Wensheng Zhang, Cuihua Li, Shuyang Lin, Yanyun Qu, Yinghua Zhang. Discriminative Object Tracking via Sparse Representation and Online Dictionary Learning. *IEEE Transactions on Cybernetics*, pp. 539-553, 44(4), 2014.

25. **Yuan Xie**, Wensheng Zhang, Yanyun Qu, Yinghua Zhang. Discriminative Subspace Learning with Sparse Representation View-based Model for Robust Visual Tracking. *Pattern Recognition*, pp. 1383-1394, 47(3), 2014.

26. **Yuan Xie**, Yanyun Qu, Cuihua Li, Wensheng Zhang. Online Multiple Instance Gradient Feature Selection for Robust Visual Tracking. *Pattern Recognition Letter*, 33(9): 1075-1082, 2012.

27. Demao Zhang, Zhizhong Zhang, Ying Ju, Cong Wang, **Yuan Xie**, Yanyun Qu. Dual Mutual Learning for Cross-Modality Person Re-Identification, *IEEE Transactions on Circuits Systems and Video Technology*, vol. 32, no. 8, 2022.

28. Mengtian Li, **Yuan Xie***, Lizhuang Ma*. Paying attention for adjacent areas: Learning discriminative features for large-scale 3D scene segmentation, *Pattern Recognition*, Vol. 129, 2022.

29. Yongqiang Tang, **Yuan Xie**, Changqing Zhang, Zhizhong Zhang, Wensheng Zhang. One-step Multiview Subspace Segmentation via Joint Skinny Tensor Learning and Latent Clustering. *IEEE Transactions on Cybernetics*, vol. 52, no. 9, 2022.

30. Yongqiang Tang#, **Yuan Xie**#, Xuebing Yang, Jinghao Niu, Wensheng Zhang. Tensor Multi-Elastic Kernel Self-Paced Learning for Time Series Clustering. *IEEE Trans. on Knowledge and Data Engineering*, vol. 33, no. 3, 2021.

31. Yongqiang Tang, **Yuan Xie**, Chenyang Zhang, Wensheng Zhang. Constrained Tensor Representation Learning for Multi-View Semi-Supervised Subspace Clustering. *IEEE Transactions on Multimedia*, accepted, 2021.

32. Yuqiang Zheng*, **Yuan Xie***, Yanyun Qu, Xiaodong Yang, Cuihua Li, Yan Zhang. Scale robust deep oriented-text detection network. *Pattern Recognition*, vol. 102, 2020. (*equal contribution)

33. Wenrui Hu, Dacheng Tao, Wensheng Zhang, **Yuan Xie***, Yehui Yang. The Twist Tensor Nuclear Norm for Video Completion. *IEEE Transactions on Neural Networks and Learning Systems*, vol. 28, no. 12, pp. 2961-2973, 2017.

34. Yehui Yang, Wenrui Hu, **Yuan Xie**, Wensheng Zhang, Tianzhu Zhang. Temporal Restricted Visual Tracking via Reverse-Low-Rank Sparse Learning. *IEEE Transactions on Cybernetics*, vol. 47, no. 2, pp. 485-498, 2017.

35. Yehui Yang, Wenrui Hu, Wensheng Zhang, Tianzhu Zhang, **Yuan Xie**. Discriminative Reverse Sparse Tracking via Weighted Multitask Learning. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 27, no. 5, pp. 1031-1042, 2017.

36. Shiyang Yan, **Yuan Xie**, Fangyu Wu, Jeremy S. Smith, Wenjin Lu, Bailing Zhang. Image Captioning via Hierarchical Attention Mechanism and Policy Gradient Optimization. *Signal Processing*, vol. 167, accepted, 2020.

37. Rong Chen, Yanyun Qu, Cuihua Li, Kun Zeng, **Yuan Xie**, Ce Li. Single-image Super-resolution via Joint Statistic Models-guided Deep Auto-encoder Network. *Neural Computing and Applications*, 2018.

38. Yehui Yang, **Yuan Xie**, Wensheng Zhang, Wenrui Hu, Yuanhua Tan. Global Coupled Learning and Local Consistencies Ensuring for Sparse-based Tracking. *Neurocomputing*, vol. 154, pp. 191-205, 2015.

39. Wenrui Hu, **Yuan Xie**, Lin Li, Wensheng Zhang. A TV-RC Based Nonrigid Image Registration by Combining Parametric and Non-Parametric Transformation. *Neurocomputing*, pp. 222-237, 2014.

40. Lin Li, **Yuan Xie**, Wenrui Hu, Wensheng Zhang. Single Image Super-Resolution using Combined Total Variation Regularization by Split Bregman Iteration. *Neurocomputing*, pp. 551-560, 2014.

41. Yang Yang, Wensheng Zhang, Yuan Xie. Image Automatic Annotation via Multi-View Deep Representation. *Journal of Visual Communication and Image Representation*, pp. 368-377, 2014.

42. Yinghua Zhang, Wensheng Zhang, **Yuan Xie**. Improved Heuristic Equivalent Search Algorithm Based on Maximal Information Coefficient for Bayesian Network Structure Learning. *Neurocomputing*, vol. 117, pp. 186-195, 2013.

43. Jianmin Li, Yanyun Qu, Cuihua Li, **Yuan Xie**, Yang Wu, Jianping Fan. Learning Local Gaussian Process Regression for Image Super-Resolution. *Neurocomputing*, vol. 154, pp. 284-295, 2015.

44. Jianmin Li, Yanyun Qu, Cuihua Li, **Yuan Xie**. Image super-resolution based on multi-kernel regression. *Multimedia Tools Application*, vol. 75, no. 7, pp. 4115-4128, 2016.

45. Jin Liu, Juan Li, Xiaoping Sun, **Yuan Xie**, Jeff Lei, Qiping Hu. An Embedded Co-AdaBoost based Construction of Software Document Relation Coupled Resource Spaces for Cyber-physical Society. *Future Generation Computer System*, vol. 32, pp. 198-210, 2014.

Selected Conference

(* means corresponding author, # means equal contribution)

1. Jingyang Qiao, Zhizhong Zhang, Xin Tan, Chengwei Chen, Yanyun Qu, Yong Peng, **Yuan Xie***. Prompt Gradient Projection for Continual Learning, *International Conference on Learning Representations*, 2024.

2. Haoming Chen, Zhizhong Zhang, Yanyun Qu, Ruixin Zhang, Xin Tan, **Yuan Xie***. Building a Strong Pre-Training Baseline for Universal 3D Large-Scale Perception, *IEEE Conference Computer Vision and Pattern Recognition*, 2024.

3. Qihang Ma, Xin Tan, Yanyun Qu, Lizhuang Ma, Zhizhong Zhang, **Yuan Xie***. COTR: Compact Occupancy TRansformer for Vision-based 3D Occupancy Prediction, *IEEE Conference Computer Vision and Pattern Recognition*, 2024.

4. Zhen Zhao, Jingqun Tang, Chunhui Lin, Binghong Wu, Can Huang, Hao Liu, Xin Tan, Zhizhong Zhang, **Yuan Xie***. Multi-modal In-Context Learning Makes an Ego-evolving Scene Text Recognizer, *IEEE Conference Computer Vision and Pattern Recognition*, 2024.

5. Xiaofan Li, Zhizhong Zhang, Xin Tan, Yanyun Qu, Chengwei Chen, **Yuan Xie***, Lizhuang Ma. PromptAD: Learning Prompts with only Normal Samples for Few-Shot Anomaly Detection, *IEEE Conference Computer Vision and Pattern Recognition*, 2024.

6. Hongquan Zhang, Bin-Bin Gao, Yi Zeng, Xudong Tian, Xin Tan, Zhizhong Zhang, Yanyun Qu, Jun Liu, *Yuan Xie**. Learning Task-Aware Language-Image Representation for Class-Incremental Object Detection, *AAAI Conference on Artificial Intelligence*, 2024.

7. Yujun Chen, Xin Tan*, Zhizhong Zhang, Yanyun Qu, *Yuan Xie*. Beyond the Label Itself: Latent Labels Enhance Semi-supervised Point Cloud Panoptic Segmentation, *AAAI Conference on Artificial Intelligence*, 2024.

8. Lianggangxu Chen, Youqi Song, Yiqing Cai, Jiale Lu, Yang Li, *Yuan Xie**, Changbo Wang, Gaoqi He*. Multi-Prototype Space Learning for Commonsense-based Scene Graph Generation, *AAAI Conference on Artificial Intelligence*, 2024.

9. Xiaotong Luo, *Yuan Xie*, Yanyun Qu*, Yun Fu. SkipDiff: Adaptive Skip Diffusion Model for High-Fidelity Perception Image Super-resolution, *AAAI Conference on Artificial Intelligence*, 2024.

10. Jiangming Shi, Shanshan Zheng, Xiangbo Yin, Yang Lu, *Yuan Xie*, Yanyun Qu*. CLIP-guided Federated Learning on Heterogeneity and Long-Tailed Data, *AAAI Conference on Artificial Intelligence*, 2024.

11. Yachao Zhang, Runze Hu, Ronghui Li, Yanyun Qu, *Yuan Xie*, Xiu Li. Cross-Modal Match for Language Conditioned 3D Object Grounding, *AAAI Conference on Artificial Intelligence*, 2024.

12. Yubo Zhou, Jin Lin, Fangchen Ye, Yanyun Qu*, *Yuan Xie*. Efficient Lightweight Image Denoising with Triple Attention Transformer, ***AAAI Conference on Artificial Intelligence***, 2024.

13. Xiaotong Luo, Zekun Ai, Qiuyuan Liang, *Yuan Xie*, Yanyun Qu, Yun Fu. AdaFormer: Efficient Transformer with Adaptive Token Sparsification for Image Super-resolution, ***AAAI Conference on Artificial Intelligence***, 2024.

14. Xiaotong Luo, *Yuan Xie*, Yanyun Qu. Learning Re-sampling Methods with Parameter Attribution for Image Super-Resolution, ***Neural Information Processing Systems***, 2023.

15. Xudong Tian, Zhizhong Zhang, Xin Tan, Jun Liu, Chengjie Wang, Yanyun Qu, Guannan Jiang, **Yuan Xie***. Instance and Category Supervision are Alternate Learners for Continual Learning, ***International Conference on Computer Vision***, 2023.

16. Zhiwei Zhang, Qian Yu, Chengyang Li, Jia Cai, Ran Yi, **Yuan Xie***, Lizhuang Ma*. LiDAR-Camera Panoptic Segmentation via Geometry-Consistent and Semantic-Aware Alignment. ***International Conference on Computer Vision***, 2023.

17. Jiangming Shi, Yachao Zhang, Xiangbo Yin, **Yuan Xie***, Zhizhong Zhang, Jianping Fan, Zhongchao Shi, Yanyun Qu*. Dual Pseudo-Labels Interactive Self-Training for Semi-Supervised Visible-Infrared Person Re-Identification. ***International Conference on Computer Vision***, 2023.

18. Zhen Zhao, Zhizhong Zhang*, Xin Tan, Jun Liu, Yanyun Qu, **Yuan Xie***, Lizhuang Ma. Rethinking Gradient Projection Continual Learning: Stability/Plasticity Feature Space Decoupling. ***IEEE Conference Computer Vision and Pattern Recognition***, 2023.

19. Tenghao Cai, Zhizhong Zhang, Xin Tan, Yanyun Qu, Guannan Jiang, Chengjie Wang, **Yuan Xie***. Multi-Centroid Task Descriptor for Dynamic Class Incremental Inference. ***IEEE Conference Computer Vision and Pattern Recognition***, 2023.

20. Jin Lin, Xiaotong Luo, Ming Hong, Yanyun Qu, **Yuan Xie***, Zongze Wu. Memory-friendly Scalable Super-resolution via Rewinding Lottery Ticket Hypothesis. ***IEEE Conference Computer Vision and Pattern Recognition***, 2023.

21. Yuxiang Lan, Yachao Zhang, Yanyun Qu*, Cong Wang, **Yuan Xie***, Zongze Wu. Weakly Supervised 3D Segmentation via Receptive-driven Pseudo Label Consistency and Structural Consistency, ***AAAI Conference on Artificial Intelligence***, 2023.

22. Yanbo Wang, Chuming Lin, Donghao Luo, Ying Tai, Zhizhong Zhang*, **Yuan Xie**. High-Resolution GAN Inversion for Degraded Images in Large Diverse Datasets. ***AAAI Conference on Artificial Intelligence***, 2023.

23. Jinxiang Lai, Siqian Yang, Wenlong Wu, Guannan Jiang, Xi Wang, Jun Liu, Bin-Bin Gao, Wei Zhang, **Yuan Xie***, Chengjie Wang*. SpatialFormer: Semantic and Target Aware Attentions for Few-Shot Learning. ***AAAI Conference on Artificial Intelligence***, 2023.

24. Haiyan Wu, Yuting Gao, Yinqi Zhang, Shaohui Lin*, **Yuan Xie***, Xing Sun, Ke Li. Self-supervised Models are Good Teaching Assistants for Vision Transformers, *International Conference on Machine Learning*, 2022.

25. Xia Kong, Zuodong Gao, Xiaofan Li, Ming Hong, Jun Liu, Chengjie Wang, **Yuan Xie***, Yanyun Qu*. En-Compactness: Self-Distillation Embedding & Contrastive Generation for Generalized Zero-Shot Learning. *IEEE Conference Computer Vision and Pattern Recognition*, 2022.

26. Junshu Tang, Zhijun Gong, Ran Yi, **Yuan Xie**, Lizhuang Ma. LAKe-Net: Topology-Aware Point Cloud Completion by Localizing Aligned Keypoints. *IEEE Conference Computer Vision and Pattern Recognition*, 2022.

27. Mengtian Li, **Yuan Xie**, Yunhang Shen, Bo Ke, Ruizhi Qiao, Bo Ren, Shaohui Lin, Lizhuang Ma. HybridCR: Weakly-Supervised 3D Point Cloud Semantic Segmentation via Hybrid Contrastive Regularization. *IEEE Conference Computer Vision and Pattern Recognition*, 2022.

28. Wang Yuan, Zhizhong Zhang, Cong Wang, Haichuan Song, **Yuan Xie***, Lizhuang Ma*. Task-level Self-supervision for Cross-domain Few-shot Learning. *AAAI Conference on Artificial Intelligence*, 2022.

29. Chengwei Chen, **Yuan Xie***, Shaohui Lin, Angela Yao, Guannan Jiang, Wei Zhang, Yanyun Qu, Ruizhi Qiao, Bo Ren, Lizhuang Ma*. Comprehensive Regularization in a Bi-directional Predictive Network for Video Anomaly Detection. *AAAI Conference on Artificial Intelligence*, 2022.

30. Jingyu Gong, Fengqi Liu, Jiachen Xu, Min Wang, Xin Tan, Zhizhong Zhang, Ran Yi, Haichuan Song, **Yuan Xie***, Lizhuang Ma*. Optimization over Disentangled Encoding: Unsupervised Cross-Domain Point Cloud Completion via Occlusion Factor Manipulation, *European Conference on Computer Vision*, 2022.

31. Jiangming Wang, Zhizhong Zhang*, Mingang Chen, Yi Zhang, Cong Wang, Bin Sheng, Yanyun Qu, **Yuan Xie***. Optimal Transport for Label-Efficient Visiable-Infrared Person Re-Identification, *European Conference on Computer Vision*, 2022.

32. TianXue Ma, Mingwei Bi, Jian Zhang, Wang Yuan, Zhizhong Zhang*, **Yuan Xie**, Shouhong Ding, Lizhuang Ma*. Mutually Reinforcing Structure with Proposal Contrastive Consistency for Few-Shot Object Detection, *European Conference on Computer Vision*, 2022.

33. Yachao Zhang, Miaoyu Li, **Yuan Xie***, Cuihua Li, Cong Wang, Zhizhong Zhang, Yanyun Qu*. Self-supervised Exclusive Learning for 3D Segmentation with Cross-Modal Unsupervised Domain Adaptation, *ACM Multimedia*, 2022. Oral.

34. Xudong Tian, Jun Liu, Zhizhong Zhang*, Chengjie Wang, Yanyun Qu, **Yuan Xie**, Lizhuang Ma. Hierarchical Walking Transformer for Object Re-Identification, *ACM Multimedia*, 2022. Oral.

35. Xiaotong Luo, Mingliang Dai, Yulun Zhang, **Yuan Xie***, Ding Liu, Yanyun Qu*, Yun Fu, Junping Zhang. Adjustable Memory-efficient Image Super-resolution via Individual Kernel Sparsity, *ACM Multimedia*, 2022.

36. Jiawei Zhan, Jun Liu, Wei Tang, Guannan Jiang, Xi Wang, Bin-Bin Gao, Tianliang Zhang, Wenlong Wu, Wei Zhang, Chengjie Wang*, **Yuan Xie***. Global Meets Local: Effective Multi-Label Image Classification via Category-Aware Weak Supervision, *ACM Multimedia*, 2022.

37. Hanzhe Sun, Jun Liu, Zhizhong Zhang, Chengjie Wang, Yanyun Qu, **Yuan Xie***, Lizhuang Ma. Not All Pixels Are Matched: Dense Contrastive Learning for Cross-Modality Person Re-Identification, *ACM Multimedia*, 2022.

38. Jinxiang Lai, Siqian Yang, Guannan Jiang, Xi Wang, Yuxi Li, Zihui Jia, Xiaochen Chen, Jun Liu, Bin-Bin Gao, Wei Zhang, **Yuan Xie***, Chengjie Wang*. Rethinking the Metric in Few-shot Learning: From an Adaptive Multi-Distance Perspective, *ACM Multimedia*, 2022.

39. Miaoyu Li, Yachao Zhang, **Yuan Xie**, Zuodong Gao, Cuihua Li, Zhizhong Zhang, Yanyun Qu*. Cross-Domain and Cross-Modal Knowledge Distillation in Domain Adaptation for 3D Semantic Segmentation, *ACM Multimedia*, 2022.

40. Yachao Zhang, Yanyun Qu*, **Yuan Xie***, Zonghao Li, Shanshan Zheng, Cuihua Li. Perturbed Self-Distillation: Weakly Supervised Large-scale Point Cloud Semantic Segmentation. *IEEE International Conference on Computer Vision*, 2021.

41. Xudong Tian, Zhizhong Zhang*, Shaohui Lin, Yanyun Qu, **Yuan Xie***, Lizhuang Ma. Farewell to Mutual Information: Variational Distillation for Cross-Modal Person Re-Identification. *IEEE Conference Computer Vision and Pattern Recognition*, 2021. Oral.

42. Haiyan Wu#, Yanyun Qu#, Jian Zhou, Ruizhi Qiao, **Shaohui Lin***, Zhizhong Zhang, **Yuan Xie***, Lizhuang Ma. Contrastive Learning for Compact Single Image Dehazing. *IEEE Conference Computer Vision and Pattern Recognition*, 2021.

43. Jingyu Gong, Jiachen Xu, Xin Tan, Peizhao Li, Haichuan Song, Yanyun Qu, **Yuan Xie***, Lizhuang Ma*. Omni-supervised Point Cloud Segmentation via Gradual Receptive Field Component Reasoning. *IEEE Conference Computer Vision and Pattern Recognition*, 2021.

44. Shiyang Yan, Li Yu, **Yuan Xie**. Discrete-continuous Action Space Policy Gradient-based Attention for Image-Text Matching. *IEEE Conference Computer Vision and Pattern Recognition*, 2021.

45. Jingyu Gong, Jiachen Xu, Xin Tan, Jie Zhou, Yanyun Qu, **Yuan Xie***, Lizhuang Ma. Boundary-Aware Geometric Encoding for Semantic Segmentation of Point Clouds, *AAAI Conference on Artificial Intelligence*, 2021.

46. Yachao Zhang, Zonghao Li, **Yuan Xie***, Yanyun Qu, Cuihua Li, Tao Mei. Weakly Supervised Semantic Segmentation for Large-Scale Point Cloud, *AAAI Conference on Artificial Intelligence*, 2021.

47. Xuncheng Liu, Xudong Tian, Shaohui Lin, Yanyun Qu, Wang Yuan, Zhizhong Zhang*, **Yuan Xie***, Lizhuang Ma. Learning from Concepts: Towards the Purified Memory for Few-shot Learning. *International Joint Conference on Artificial Intelligence*, 2021.

48. Yanbo Wang, Shaohui Lin*, Yanyun Qu, Haiyan Wu, Zhizhong Zhang, **Yuan Xie***, Angela Yao. Towards Compact Single Image Super-Resolution via Contrastive Learning. *International Joint Conference on Artificial Intelligence*, 2021.

49. Chengwei Chen#, **Yuan Xie**#, Shaohui Lin, Ruizhi Qiao, Jian Zhou, Xin Tan, Yi Zhang, Lizhuang Ma*. Novelty Detection via Contrastive Learning with Negative Data Augmentation. *International Joint Conference on Artificial Intelligence*, 2021.

50. Shubao Liu, Keyue Zhang, Taiping Yao, Kekai Sheng, Shouhong Ding, Ying Tai, Jilin Li, **Yuan Xie**, Lizhuang Ma. Dual Reweighting Domain Generalization for Face Presentation Attack Detection. *International Joint Conference on Artificial Intelligence*, 2021.

51. Bicheng Dai, Kaisheng Wu, Tong Wu, Kai Li, Yanyun Qu*, **Yuan Xie***, Yun Fu*. Faster-PPN: Towards Real-Time Semantic Segmentation with Dual Mutual Learning for Ultra-High Resolution Images. *ACM Multimedia*, 2021.

52. Jiacheng Xu, Jingyu Gong, Jie Zhou, Xin Tan, **Yuan Xie***, Lizhuang Ma. SceneEncoder: Scene-Aware Semantic Segmentation of Point Clouds with Learnable Scene Descriptor. *International Joint Conference on Artificial Intelligence*, 2020.

53. Chengwei Chen, Jing Liu, **Yuan Xie***, Yinxiao Ban, Chunyun Wu, Yiqing Tao, Haichuan Song. Latent Regularized Generative Dual Adversarial Network for Abnormal Detection. *International Joint Conference on Artificial Intelligence*, 2020.

54. Jiachen Xu, Jingyu Gong, Jie Zhou, Xin Tan, **Yuan Xie***, Lizhuang Ma. SceneEncoder: Scene-Aware Semantic Segmentation of Point Clouds with A Learnable Scene Descriptor. *International Joint Conference on Artificial Intelligence*, 2020.

55. Ming Hong*, **Yuan Xie***, Cuihua Li, Yanyun Qu. Distill Image Dehazing with Heterogeneous Task Imitation. *IEEE Conference Computer Vision and Pattern Recognition*, 2020. (* means equal contribution)

56. Xiaotong Luo#, **Yuan Xie**#, Yulun Zhang, Yanyun Qu, Cuihua Li, Yun Fu. LatticeNet: Towards Lightweight Image Super-Resolution with Lattice Block. *European Conference on Computer Vision*, 2020.

57. Peng Li, Changyong Shu, **Yuan Xie***, Yanyun Qu, Hui Kong. Hierarchical Knowledge Squeezed Adversarial Network Compression. *AAAI Conference on Artificial Intelligence*, 2020.

58. Tong Wu, Zhenzhen Lei, Bingqian Lin, Cuihua Li, Yanyun Qu, **Yuan Xie***. Patch Proposal Network for Fast Semantic Segmentation of High-Resolution Images. *AAAI Conference on Artificial Intelligence*, 2020.

59. Yanyun Qu, Yizi Chen, Jingying Huang, **Yuan Xie***. Enhanced Pix2pix Dehazing Network. *IEEE Conference Computer Vision and Pattern Recognition*, 2019.

60. Rong Chen*, **Yuan Xie***, Xiaotong Luo, Yanyun Qu, Cuihua Li. Joint-Attention Discriminator for Accurate Super-Resolution via Adversarial Training. *ACM International Conference on Multimedia*, accepted, 2019.

61. Jing Liu, **Yuan Xie***, Haichuan Song, Wang Yuan, LiZhuang Ma. Residual Attention Network for Wavelet Domain Super-Resolution. *IEEE International Conference on Acoustics, Speech and Signal Processing*, 2020.

62. Longquan Dai, Liang Tang, **Yuan Xie**, Jinhui Tang. Designing by Training: Acceleration Neural Network for Fast High-Dimensional Convolution. *Neural Information Processing Systems*, 2018.

63. Xiaotong Luo, Rong Chen, **Yuan Xie**, Yanyun Qu, Cuihua Li. Bi-GANs-ST for Perceptual Image Super-Resolution. *European Conference on Computer Vision Workshop*, 2018.

64. Rong Chen, Yanyun Qu, Cuihua Li, **Yuan Xie**. Bi-GANs-ST for Perceptual Image Super-Resolution. *European Conference on Computer Vision PIRM Workshop*, 2018.

65. Yuanhao Gong, **Yuan Xie**. Linear Approximation of Mean Curvature. *IEEE International Conference on Image Processing*, 2017.

66. **Yuan Xie**, Lifeng Liu, Cuihua Li, Yanyun Qu. Unifying Visual Saliency with HOG Feature Learning for Traffic Sign Detection. *IEEE Intelligent Vehicles Symposium*, 24-29, 2009.

Social Activities

Associate editor of International Journal of Image and Graphic,
Senior PC member/Area Chair, International Joint Conference on Artificial Intelligence (IJCAI 2020/2021, CCF A, Top Conference on AI)
Area Chair, ACM Conference on Information and Knowledge Management (ACM CIKM, CCF B, Top Conference on Data Mining),
PC member, ACM International Conference on Internet Multimedia Computing and Service (ACM ICIMCS), 2014

Reviewer of International Journal of Computer Vision,
IEEE Transactions on Pattern Analysis and Machine Intelligence,
IEEE Transactions on Image Processing,
IEEE Transactions on Multimedia,
IEEE Transactions on Cybernetics,
IEEE Transactions on Neural Network and Learning Systems,
IEEE Transactions on Knowledge and Data Engineering,
IEEE Transactions on Signal Processing,
IEEE Transactions on Industrial Informatics,

IEEE Transactions on Geoscience and Remote Sensing,
IEEE Transactions on Circuits and Systems for Video Technology,
Signal Processing,
Neurocomputing,
Journal of Visual Communication and Image Representation Registration,
IET Image Processing,
IET Computer Vision.