Wenhan LUO, Ph.D., IEEE Senior Member

CONTACT INFORMATION

Mobile: (+86)186-1269-6823
Email: whluo.china@gmail.com
Homepage: https://whluo.github.io/

WORKING EXPERIENCE

Sun Yat-sen University — **Shenzhen, China**
- Associate Professor — Jul, 2022 â ? Present

Tencent — **Shenzhen, China**
- Senior Researcher — Mar, 2020 â ? Jul, 2022

Amazon — **Palo Alto, CA, USA**
- Research Scientist — Jul, 2019 â ? Jan, 2020

Tencent — **Shenzhen, China**
- Senior Researcher — Aug, 2016 â ? May, 2019

EDUCATION

Imperial College London — **London, UK**
- Ph.D. in Computer Science — Oct, 2012 â ? Jun, 2016

Institute of Automation, Chinese Academy of Sciences — **Beijing, China**
- M.E. in Control Theory and Control Engineering — Sep, 2009 – Jul, 2012

Huazhong University of Science and Technology — **Wuhan, China**
- B.E. in Automation — Sep, 2005 – Jul, 2009

RESEARCH INTERESTS

Computer Vision, Machine Learning

PUBLICATIONS

(† indicates interns/students working with me, * indicates equal contribution)

1. T. Wang, K. Zhang, Z. Shao, **W. Luo**, B. Stenger, T. Lu, T. Kim, W. Liu, H. Li, GridFormer: Residual Dense Transformer with Grid Structure for Image Restoration in Adverse Weather Conditions, *International Journal of Computer Vision (**IJCV**)*, to appear.
2. X. Qi, J. Pan, P. Li, R. Yuan, X. Chi, M. Li, **W. Luo**, W. Xue, S. Zhang, Q. Liu, Y. Guo, Weakly-Supervised Emotion Transition Learning for Diverse 3D Co-speech Gesture Generation, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, 2024.
3. Y. Shao, S. He, Q. Ye, Y. Feng, **W. Luo**, J. Chen, Context-Aware Integration of Language and Visual References for Natural Language Tracking, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, 2024.
4. Y. Li, B. Hu, **W. Luo**, L. Ma, Y. Ding, M. Zhang, A Multimodal In-Context Tuning Approach for E-Commerce Product Description Generation, *International Conference on Computational Linguistics (COLING)*, 2024.
5. Y. Gao, W. Zhang, **W. Luo**, L. Ma, J. Yu, G. Xia, J. Ma, Free Lunches in Auxiliary Learning: Exploiting Auxiliary Labels with Negligibly Extra Inference Cost, *International Conference on Learning Representations (**ICLR**)*, 2024.
6. W. Wang, C. Du, T. Wang, K. Zhang, **W. Luo**, L. Ma, W. Liu, X. Cao, Punctuation-level Attack: Single-shot and Single Punctuation Can Fool Text Models, *Neural Information Processing Systems (**NeurIPS**)*, 2023.
7. Y. Yu, P. Zhang, K. Zhang, **W. Luo**, C. Li, Y. Yuan, G. Wang, Multi-Prior Learning via Neural Architecture Search for Blind Face Restoration, *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, to appear.
8. J. Tan, X. Chen, T. Wang, K. Zhang, **W. Luo**, X. Cao, Blind Face Restoration for Under-Display Camera via Dictionary Guided Transformer, *IEEE Trans. on Circuits*

and Systems for Video Technology (TCSVT), to appear.

9. K. Zhang, T. Wang, **W. Luo**, W. Ren, B. Stenger, W. Liu, H. Li, M. Yang, MC-Blur: A Comprehensive Benchmark for Image Deblurring, *IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)*, to appear.
10. T. Wang, G. Tao, W. Lu, K. Zhang, **W. Luo**, X. Zhang, T. Lu, Restoring Vision in Hazy Weather with Hierarchical Contrastive Learning, *Pattern Recognition*, to appear.
11. T. Gao, Y. Wen, K. Zhang, J. Zhang, T. Chen, L. Liu, **W. Luo**, Frequency-oriented Efficient Transformer for All-in-one Weather-degraded Image Restoration, *IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)*, 2023.
12. T. Zhou, Q. Ye, **W. Luo**, K. Zhang, Z. Shi, J. Chen, FnF Attack Adversarial Attack against Multiple Object Trackers by Inducing False Negatives and False Positives, *Proc. of International Conference on Computer Vision (**ICCV**)*, 2023.
13. P. Cheng, L. Lin, J. Lyu, Y. Huang, **W. Luo**, X. Tang, PRIOR: Prototype Representation Joint Learning from Medical Images and Reports, *Proc. of International Conference on Computer Vision (**ICCV**)*, 2023.
14. Y. Qiu, K. Zhang, C. Wang, **W. Luo**, H. Li, Z. Jin, MB-TaylorFormer: Mutil-branch Efficient Transformer Expanded by Taylor Formula for Image Dehazing, *Proc. of International Conference on Computer Vision (**ICCV**)*, 2023.
15. S. Wang, C. Nguyen, J. Liu, K. Zhang, **W. Luo**, Y. Zhang, S. Muthu, F. Maken, H. Li, Homography Guided Temporal Fusion for Road Line and Marking Segmentation, *Proc. of International Conference on Computer Vision (**ICCV**)*, 2023.
16. Y. Shao, Q. Ye, **W. Luo**, K. Zhang, J. Chen, InterTracker: Discovering and Tracking General Objects Interacting with Hands in the Wild, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2023.
17. Z. Song, Z. Zhang, K. Zhang, **W. Luo**, Z. Fan, W. Ren and J. Lu, Robust Single Image Reflection Removal Against Adversarial Attacks, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, 2023.
18. Z. Kong, W. Zhang, F. Liu, **W. Luo**, H. Liu, L. Shen and R. Ramachandra, Taming Self-Supervised Learning for Presentation Attack Detection: De-Folding and De-Mixing, *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2023.
19. T. Wang, K. Zhang, T. Shen, **W. Luo**, B. Stenger, T. Lu, Ultra-High-Definition Low-Light Image Enhancement: A Benchmark and Transformer-Based Method, *Proc. of the Association for the Advancement of Artificial Intelligence (**AAAI**)*, 2023. (**Oral Presentation**)
20. H. Fang, P. Xiong, L. Xu, **W. Luo**, Transferring Image-CLIP to Video-Text Retrieval via Temporal Relations, *IEEE Transactions on Multimedia (TMM)*, 2023.
21. L. Zheng†, Y. Li, K. Zhang, **W. Luo**, T-Net: Deep Stacked Scale-Iteration Network for Image Dehazing, *IEEE Transactions on Multimedia (TMM)*, 2023.
22. Z. You, K. Yang, **W. Luo**, X. Lu, L. Cui, X. Le, Few-shot Object Counting with Similarity-Aware Feature Enhancement, *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2023.
23. T. Zhou, **W. Luo**, Z. Shi, J. Chen, Q. Ye, APPTracker: Improving Tracking Multiple Objects in Low-Frame-Rate Videos, *The 30th ACM International Conference on Multimedia (**ACM MM**)*, 2022.
24. W. Niu, K. Zhang, D. Li, **W. Luo**, Four-player GroupGAN for Weak Expression Recognition via Latent Expression Magnification, *Knowledge-Based Systems*, 2022.
25. K. Zhang, D. Li, **W. Luo**, J. Liu, J. Deng, W. Liu, S. Zafeiriou, EDFace-Celeb-1M: Benchmarking Face Hallucination with a Million-scale Dataset, *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2022.
26. K. Zhang, W. Ren, **W. Luo**, W. Lai, B. Stenger, M. Yang, H. Li, Deep Image Deblurring: A Survey, *International Journal of Computer Vision (**IJCV**)*, 2022.
27. K. Zhang†, **W. Luo**, Y. Yu, W. Ren, F. Zhao, C. Li, L. Ma, W. Liu, H. Li,

Beyond Monocular Deraining: Parallel Stereo Deraining Network Via Semantic Prior, *International Journal of Computer Vision (**IJCV**)*, 2022.

28. Y. Wang†, Guo Pu, **W. Luo**, Y. Wang, P. Xiong, H. Kang, Z. Lian, Aesthetic Text Logo Synthesis via Content-aware Layout Inferring, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, 2022.
29. K. Zhang†, D. Li, **W. Luo**, W. Ren, W. Liu, Enhanced Spatio-Temporal Interaction Learning for Video Deraining: A Faster and Better Framework, *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2022.
30. K. Zhang, D. Li, **W. Luo**, W. Ren, B. Stenger, W. Liu, H. Li, M. Yang, Benchmarking Ultra-High-Definition Image Super-resolution, *Proc. of International Conference on Computer Vision (**ICCV**)*, 2021.
31. W. Niu, K. Zhang, **W. Luo**, Y. Zhong, H. Li, Deep Robust Image Deblurring via Blur Distilling and Information Comparison in Latent Space, Neurocomputing, vol. 466, pp. 69-79, 2021.
32. W. Niu, K. Zhang, **W. Luo**, Y. Zhong, Blind Motion Deblurring Super-Resolution: When Dynamic Spatio-Temporal Learning Meets Static Image. *IEEE Trans. on Image Processing (**TIP**)*, 2021.
33. K. Zhang, D. Li, **W. Luo**, W. Ren, Dual Attention-in-Attention Model for Joint Rain Streak and Raindrop Removal. *IEEE Trans. on Image Processing (**TIP**)*, 2021.
34. K. Zhang, R. Li, Y. Yu, **W. Luo**, C. Li, Deep Dense Multi-scale Network for Snow Removal Using Semantic and Geometric Priors. *IEEE Trans. on Image Processing (**TIP**)*, 2021.
35. R. Xia, Y. Li, **W. Luo**, LAGA-Net: Local-And-Global Attention Network for Skeleton Based Action Recognition, *IEEE Transactions on Multimedia (TMM)*, 2021.
36. F. Zhong†, P. Sun, **W. Luo**, T. Yan, Y. Wang, Towards Distraction-Robust Active Visual Tracking, *International Conference on Machine Learning (**ICML**)*, 2021.
37. X. Zhang, R. Jiang, T. Wang and **W. Luo**, Single Image Dehazing via Dual-Path Recurrent Network, *IEEE Trans. on Image Processing (**TIP**)*, 2021.
38. W. Liu†, Z. Piao, Z. Tu, **W. Luo**, L. Ma, and S. Gao, Liquid Warping GAN with Attention: A Unified Framework for Human Image Synthesis, *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2021.
39. Y. Li, H. Tang, W. Xie, and W. Luo, Multidimensional Local Binary Pattern for Hyperspectral Image Classification, *IEEE Trans. on Geoscience and Remote Sensing (TGRS)*, 2021.
40. K. Zhang†, **W. Luo**, L. Ma, W. Ren, and H. Li, Disentangled Feature Networks for Facial Portraits Generation, *IEEE Transactions on Multimedia (TMM)*, 2021.
41. **W. Luo**, J. Xing, A. Milan, X. Zhang, W. Liu, and T-K. Kim, Multiple Object Tracking: A Literature Review, ***Artificial Intelligence***, 2021.
42. X. Zhang, T. Wang, **W. Luo**, P. Huang, Multi-level Fusion and Attention-guided CNN for Image Dehazing, *IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)*, 2021.
43. T. Wang, X. Zhang, R. Jiang, L. Zhao, H. Chen, **W. Luo**, Video Deblurring via Spatiotemporal Pyramid Network and Adversarial Gradient Prior, *Computer Vision and Image Understanding (CVIU)*, 2020.
44. Z. Ren†, **W. Luo**, J. Yan, X. Yang, A. Yuille, H. Zha, STFlow: Self-Taught Optical Flow Estimation Using Pseudo Labels, *IEEE Trans. on Image Processing (**TIP**)*, 2020.
45. T. Liu†, **W. Luo**, L. Ma, J. Huang, T. Stathaki, T. Dai, Coupled Network for Robust Pedestrian Detection with Gated Multi-Layer Feature Extraction and Deformable Occlusion Handling, *IEEE Trans. on Image Processing (**TIP**)*, 2020.
46. K. Zhang†, **W. Luo**, B. Stenger, W. Ren, L. Ma, H. Li, Every Moment Matters: Detail-Aware Networks to Bring a Blurry Image Alive, *The 28th ACM International Conference on Multimedia (**ACM MM**)*, 2020.
47. K. Zhang†, **W. Luo**, W. Ren, J. Wang, F. Zhao, L. Ma, H. Li, Beyond Monocular

Deraining: Stereo Image Deraining via Semantic Understanding, *European Conference on Computer Vision (**ECCV**)*, UK, 2020.

48. Z. Zhou†, **W. Luo**, Q. Wang, J. Xing, W. Hu, Distractor-Aware Discrimination Learning for Online Multiple Object Tracking, *Pattern Recognition*, 2020.
49. Y. Li, H. Tang, L. Fan, **W. Luo**, TSSLBP: Tensor-based Spatialâ Spectral Local Binary Pattern, *Journal of Applied Remote Sensing*, 2020.
50. K. Zhang†, **W. Luo**, Y. Zhong, L. Ma, B. Stenger, W. Liu, H. Li, Deblurring by Realistic Blurring, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2020. (**Oral Presentation**)
51. W. Xiong, Y. He, Y. Zhang, **W. Luo**, L. Ma, J. Luo, Fine-grained Image-to-Image Transformation towards Visual Recognition, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2020.
52. F. Zhong†, P. Sun, **W. Luo**, T. Yan, Y. Wang, AD-VAT+: An Asymmetric Dueling mechanism for learning and understanding Visual Active Tracking, *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2019.
53. Z. Liu†, **W. Luo**, B. Wu, X. Yang, W. Liu, K-T. Cheng, Bi-Real Net: Binarizing Deep Network Towards Real-Network Performance, *International Journal of Computer Vision (**IJCV**)*, 2019.
54. W. Liu†, Z. Piao, J. Min, **W. Luo**, L. Ma, S. Gao, Liquid Warping GAN: A Unified Framework for Human Motion Imitation, Appearance Transfer and Novel View Synthesis, *Proc. of International Conference on Computer Vision (**ICCV**)*, Korea, 2019.
55. Z. Chen†, L. Ma, **W. Luo**, K.-Y. K. Wong, Weakly-Supervised Spatio-Temporally Grounding Natural Sentence in Video, *The 57th Annual Meeting of the Association for Computational Linguistics (**ACL**)*, Italy, 2019. (**Oral Presentation**)
56. X. Yang*, **W. Luo***, L. Bao, Y. Gao, D. Gong, S. Zheng, Z. Li, W. Liu, Face Anti-Spoofing: Model Matters, So Does Data, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2019.
57. K. Zhang†, **W. Luo**, L. Ma, W. Liu, H. Li, Learning Joint Gait Representation via Quintuplet Loss Minimization, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2019. (**Oral Presentation**)
58. J. Wan†, **W. Luo**, B. Wu, A. Chan, W Liu, Residual Regression with Semantic Prior for Crowd Counting, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2019.
59. K. Tang†, H. Zhang, B. Wu, **W. Luo**, W. Liu, Learning to Compose Dynamic Tree Structures for Visual Contexts, *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (**CVPR**)*, USA, 2019. (**Oral Presentation, Best Paper Nominee**)
60. N. Li, Y. Zhang, L. Zhu, **W. Luo**, S. Kwong, Reinforcement Learning Based Coding Unit Early Termination Algorithm for High Efficiency Video Coding, *Journal of Visual Communication and Image Representation*, 2019.
61. **W. Luo***, P. Sun*, F. Zhong*, W. Liu, T. Zhang and Y. Wang, End-to-end Active Object Tracking and Its Real-world Deployment via Reinforcement Learning, *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2019.
62. F. Zhong†, P. Sun, **W. Luo**, T. Yan, Y. Wang, AD-VAT: An Asymmetric Dueling mechanism for learning Visual Active Tracking, *International Conference on Learning Representations (**ICLR**)*, 2019.
63. K. Zhang†, **W. Luo**, L. Ma, H. Li, Cousin Network Guided Sketch Recognition via Latent Attribute Warehouse, *Proc. of the Association for the Advancement of Artificial Intelligence (**AAAI**)*, 2019. (**Spotlight Presentation**)
64. **W. Luo**, B. Stenger, X. Zhao, T-K. Kim, Trajectories as Topics: Multi-Object Tracking by Topic Discovery, *IEEE Trans. on Image Processing (**TIP**)*, 2019.
65. K. Zhang†, **W. Luo**, Y. Zhong, L. Ma, W. Liu, H. Li, Adversarial Spatio-Temporal Learning for Video Deblurring, *IEEE Trans. on Image Processing (**TIP**)*, 2019.

66. Z. Liu†, B. Wu, **W. Luo**, X. Yang, W. Liu, K-T. Cheng, Bi-Real Net: Enhancing the Performance of 1-bit CNNs with Improved Representational Capability and Advanced Training Algorithm, *European Conference on Computer Vision (**ECCV**)*, Germany, 2018.
67. **W. Luo***, P. Sun*, F. Zhong, W. Liu, T. Zhang and Y. Wang, End-to-end Active Object Tracking via Reinforcement Learning, *International Conference on Machine Learning (**ICML**)*, Sweden, 2018.
68. W. Xiong†, **W. Luo**, L. Ma, W. Liu and J. Luo, Learning to Generate Time-Lapse Videos Using Multi-Stage Dynamic Generative Adversarial Networks. *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2018.
69. H. Huang†, H. Wang, **W. Luo**, L. Ma, W. Jiang, X. Zhu, Z. Li, W. Liu, Real-Time Neural Style Transfer for Videos. *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2017.
70. N. Li, Y. Zhang, **W. Luo**, N. Guo, Instant Coherent Group Motion Filtering by Group Motion Representations, *Neurocomputing*, 2017
71. **W. Luo**, B. Stenger, X. Zhao, T-K. Kim. Automatic Topic Discovery for Multi-object Tracking. *Proc. of the Association for the Advancement of Artificial Intelligence (**AAAI**)*, 2015. (**Oral Presentation**)
72. **W. Luo**, T-K. Kim, B. Stenger, X. Zhao, R. Cipolla. Bi-label Propagation for Generic Multiple Object Tracking. *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2014.
73. X. Zhao, T-K. Kim, **W. Luo**. Unified Face Analysis by Iterative Multi-Output Random Forests. *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2014.
74. **W. Luo**, T-K. Kim. Generic Object Crowd Tracking by Multi-Task Learning. *British Machine Vision Conference (BMVC)*, 2013.
75. W. Hu, X. Zhou, W. Li, **W. Luo**, X. Zhang, S. Maybank. Active Contour-Based Visual Tracking by Integrating Colors, Shapes and Motions. *IEEE Trans. on Image Processing (**TIP**)*, 2013.
76. W. Hu, X. Li, **W. Luo**, X. Zhang, S. Maybank, Z. Zhang. Single and Multiple Object Tracking Using Log-Euclidean Riemannian Subspace and Block-Division Appearance Model. *IEEE Trans. on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2012.
77. **W. Luo**, X. Li, W. Li, W. Hu. Robust Visual Tracking via Transfer Learning. *IEEE International Conference on Image Processing (ICIP)*, 2011.
78. **W. Luo**, X. Zhang, Y. Liu, X. Li, W. Hu, W. Li. Efficient Block-division Model for Robust Multiple Object Tracking. *IEEE International Conference on Acoustics,Speech, and Signal Processing (ICASSP)*, 2011.
79. X. Zhang, **W. Luo**, L. Zhao, W. Li, W. Hu. Semantic Shape Similarity Based Contour Tracking Evaluation. *Optical Engineering*, vol. 50, no. 10, pp. 107003-107003, 2011.
80. W. Li, X. Zhang, **W. Luo**, W. Hu, H. Ling, O. Wu. Robust Object Tracking with Boosted Discriminative Model via Graph Embedding. *International Workshop on Visual Surveillance (VS)*, pp. 1666-1672, 2011.
81. W. Li, X. Zhang, N. Xie, W. Hu, **W. Luo**, H. Ling. Probabilistic Index Histogram for Robust Object Tracking. *International Workshop on Visual Surveillance (VS)*, pp. 184-194, 2011.

PREPRINT

(† indicates intern working with me, * indicates equal contribution)

1. T. Wang, K. Zhang, X. Chen, **W. Luo**, J. Deng, T. Lu, X. Cao, W. Liu, H. Li, S. Zafeiriou, A Survey of Deep Face Restoration: Denoise, Super-Resolution, Deblur, Artifact Removal, arXiv:2211.02831, 2022.
2. P. Zhang, K. Zhang, **W. Luo**, C. Li, G. Wang, Blind Face Restoration: Benchmark Datasets and a Baseline Model, arXiv:2206.03697, 2022.

3. Z. Chen†, L. Ma, **W. Luo**, P. Tang, K.-Y. K. Wong, Look Closer to Ground Better: Weakly-Supervised Temporal Grounding of Sentence in Video, arXiv: 2001.09308, 2020.

Professional Service

Journal Guest Editor

- Computer Vision and Image Understanding (CVIU)

Senior Program Committee

- International Joint Conference on Artificial Intelligence (IJCAI) 2024, 2023, 2021
- Proceeding of the Association for the Advancement of Artificial Intelligence (AAAI) 2024, 2022

Program Committee

- The workshop of Vision Meets Drones 2019: A Challenge in conjunction with ICCV2019.
- The 2nd Workshop and Challenge on Target Re-identification and Multi-Target Multi-Camera Tracking in conjunction with CVPR2019.
- The 4th BMTT MOT Challenge Workshop in conjunction with CVPR2019
- The 33rd AAAI Conference on Artificial Intelligence (AAAI 2019)
- International Conference on Internet Multimedia Computing and Service (ICIMCS) 2018
- The workshop of Correspondence Problem in Computer Vision and Pattern Recognition in conjunction with ICPR2018
- The workshop of Vision Meets Drone: A Challenge in conjunction with ECCV2018
- The First Joint BMPP-PETS Workshop on Tracking and Surveillance in conjunction with CVPR2017
- The workshop Benchmarking Multi-Target Tracking: MOTChallenge in conjunction with ECCV2016

Journal Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- International Journal of Computer Vision
- IEEE Transactions on Image Processing
- IEEE Transactions on Neural Networks and Learning System
- IEEE Transactions on Multimedia
- IEEE Transactions on Circuits and Systems for Video Technology
- Neurocomputing
- Pattern Recognition
- Pattern Recognition Letters

Conference Reviewer

- International Conference on Machine Learning (ICML)
- Annual Conference on Neural Information Processing Systems (NIPS)
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
- Annual Conference of the Association for Computational Linguistics (ACL)
- European Conference on Computer Vision (ECCV)
- International Conference on Computer Vision (ICCV)
- AAAI Conference on Artificial Intelligence (AAAI)
- International Joint Conference on Artificial Intelligence (IJCAI)
- Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)
- British Machine Vision Conference (BMVC)
- ACM International Conference on Multimedia (ACM MM)
- Winter Conference on Applications of Computer Vision (WACV)
- Asian Conference on Computer Vision (ACCV)

Talks

- Zhejiang University, hosted by Dr. Qi Ye, Jun, 2022.

- Shenzhen University, hosted by Prof. Yanshan Li, Feb, 2022.
- Beijing Institute of Technology, hosted by Prof. Changsheng Li, Jan, 2022.
- Southern University of Science and Technology, hosted by Prof. Xiaoying Tang, Sep, 2020.
- The Shenzhen Institutes of Advanced Technology, Chinese Academy of Science (CAS), hosted by Prof. Yun Zhang, Sep, 2018.
- The Institute of Automation, Chinese Academy of Science, hosted by Prof. Weiming Hu, Aug, 2018.
- Graduate School of Shenzhen, Tsinghua University, hosted by Prof. Yujiu Yang, June, 2018.

Patents

- **W. Luo**, L. BAO, Y. Gao, W. Liu, Method and apparatus for generating negative sample of face recognition, and computer device, US 11302118 B2
- **W. Luo**, Y. Wang, W. Liu, Living body detection method and apparatus, electronic device, storage medium, and related system to which living body detection method is applied, US 2021/0073516 A1
- **W. Luo**, L. Ma, W. Liu, Neural network model training method and device, and time-lapse photography video generating method and device, US 2020/0293833 A1
- **W. Luo**, Target Tracking Method And Apparatus, Electronic Device, And Storage Medium, US 11145069 B2
- K. Zhang, **W. Luo**, L. Ma, W. Liu, Video Deblurring Method And Apparatus, Storage Medium, And Electronic Apparatus, US 2020/0372618 A1
- K. Zhang, **W. Luo**, L. Ma, W. Liu, Media processing method, related apparatus, and storage medium, US 11335127 B2
- K. Zhang, **W. Luo**, L. Ma, W. Liu, Image recognition method and apparatus, terminal, and storage medium, US2020/0302180 A1
- K. Zhang, **W. Luo**, H. Li, Image processing method and apparatus, computer device, and storage medium, US 2021/0256663 A1
- K. Zhang, **W. Luo**, L. Ma and W. Liu, Microexpression-based image recognition method and apparatus, and related device. US20210174072A1
- Z. Chen, L. Ma, **W. Luo**, W Liu, Video sequence selection method, computer device, and storage medium, US 2021/0224601 A1
- Z. Chen, L. Ma, **W. Luo**, W Liu, Video clip positioning method and apparatus, computer device, and storage medium, US 2021/0349940 A1
- H. Huang, H. Wang, **W. Luo**, L. Ma, W. Jiang, X. Zhu, Z. Li, W. Liu, Method And Apparatus For Training Neural Network Model Used For Image Processing, And Storage Medium, US 2021/0182616 A1
- **W. Luo**, Target Tracking Method, Apparatus and Electron Equipment. CN107392937A
- **W. Luo**, Y. Gao, Z. Yang, Y. Hua, Y. Zeng, F. Wu, X. Huang. Image Processing Method and Device. X. Zhu, Y. Zheng, H. Wang, K. Huang. CN107025457A
- K. Zhang, **W. Luo** and W. Liu. Image denoise method and device and storage medium. CN202010857685.7
- K. Zhang, **W. Luo** and H. Li. Image processing method and device, computer equipment and storage medium. CN201910171831.8
- K. Zhang, **W. Luo**, L. Ma and W. Liu. Image recognition method and device based on micro expressions and related equipment. CN201811392529.7
- K. Zhang, **W. Luo**, L. Ma and W. Liu. Image recognition method, model training method and server. CN20181169065.3
- K. Zhang, **W. Luo**, L. Ma and W. Liu. Video deblurring method and device. CN201810438831.5
- K. Zhang, **W. Luo**, L. Ma and W. Liu. Video processing method and related device, and image processing method and related device. CN201910848859.0
- K. Zhang, **W. Luo**, L. Ma and W. Liu. Image recognition method and device and

related equipment. CN201910847971.2
- X. Zhang, **W. Luo**, W. Hu, Image Tracking Method Based on Sequential Particle Swarm Optimization. CN102194234A

Awards and Honors

- Top 2% Scientists Worldwide, 2023.
- ACM China Rising Star (Guangzhou Chapter), 2022.
- CVPR Best Paper Nominee, 2019.

Computer Skills

Familiar with Matlab, experiences with C/C++, knowledge of data structure and algorithm, technical skills in Python, HTML and some software engineering

Thesis

W. Luo, Generic Multiple Object Tracking, Dept. of Electrical and Electronic Engineering, Imperial College London, 2016.

Language

Mandarin (mother tongue)
English (strong at reading and writing, good at listening, fluent in speaking)
German (elementary knowledge)