Jingdong Wang (PhD, CAE/IEEE Fellow)

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Education

Ph.D, Computer Science   2004.09 - 2007.08
The Hong Kong University of Science and Technology

M.Eng, Automation   2001.09 - 2004.07
Tsinghua University
Excellent master degree thesis award

B.Eng, Automation (Rank: 1/150)   1997.09 - 2001.07
Tsinghua University

Research Interests

Computer vision and multimedia search
Vision foundation model, Self-supervised learning, Neural architecture design, human pose estimation, semantic segmentation, object detection, image classification, large scale indexing (vector search), large scale image search, salient object detection.

Machine learning and pattern recognition
Large scale learning, graph-based learning, probabilistic graphical modeling, kernel methods, spectral clustering.

Work Experience

Chief Scientist for Computer Vision   2021.09 - present
Baidu

Senior Principal Research Manager (formerly Principal Research Manager)   2019.09 - 2021.08
Microsoft Research Asia

Ph.D Supervisor   2017.09 - 2021.08
University of Science and Technology, China

Principal Researcher (formerly Senior Researcher)   2017.09 - 2019.08
Microsoft Research Asia

Principal Researcher (formerly Lead Researcher)   2015.09 - 2017.08
Microsoft Research Asia

Senior Researcher (formerly Lead Researcher)   2013.09 - 2015.08
Microsoft Research Asia

Senior Researcher (formerly Researcher)   2012.03 - 2013.08
Microsoft Research Asia

Researcher (formerly Associate Researcher)   2007.09 - 2012.02
Microsoft Research Asia

Research and Teaching Assistants   2004.09 - 2007.08
The Hong Kong University of Science and Technology
Advisor: Long Quan

Research Intern   2005.07 - 2005.12
Microsoft Research Asia   2003.09 - 2004.05
Mentor: Heung-Yeung Shum

Research Assistant   2001.09 - 2004.07
Tsinghua University
Advisor: Changshui Zhang

Professional Activities

Program chair
ICCV 2025

Senior Area chair
CVPR 2024, ACMMM 2024

Area/track chair
NeurIPS 2024, ECCV 2024, NeurIPS 2023, ICCV 2023, CVPR 2023, AAAI 2023, ICPR 2022, AAAI 2022, CVPR 2021, AAAI 2021, IJCAI 2021, ECCV 2020, CVPR 2020, IJCAI 2020, ICCV 2019, IJCAI 2019, ACMMM 2018, ICCV 2017, CVPR 2017, ECCV 2016, ACMMM 2015, ICPR 2018, ICIP 2017, ICME 2015, ICME 2012

Senior programme committee member
AAAI 2019, IJCAI 2018, AAAI 2018

Conference organizers
ACMMM 2024, Sponsor chair
ACMMM 2021, open source software chair
ACMMM Asia 2020, general chair
ICME 2019, workshop co-chair
ACM ICMR 2014, special session co-chair

Associate editors/editorial board members
ACM Transactions on Multimedia Computing Communications and Applications (July 2023 -)
International Journal of Computer Vision (Aug. 2021 -)
IEEE Transactions on Pattern Analysis and Machine Intelligence (Sept. 2018 -)
IEEE Transactions on Circuits and Systems for Video Technology (Jan. 2018 - Jan. 2022)
IEEE Transactions on Multimedia (May 2016 - May 2020)
Neurocomputing (April 2015 - May 2017)
Multimedia Tools and Applications (October 2011 -)

Workshop organizers
Fifth Workshop on Neural Architecture Search. (CVPR 2024)
Workshop on Foundation Models: 2nd Workshop. (CVPR 2024)
Workshop on Foundation Models: 1st Foundation Model Challenge. (CVPR 2023)
Fourth Workshop on Neural Architecture Search, Third lightweight NAS challenge. (CVPR 2023)
Billion-Scale Approximate Nearest Neighbor Search Challenge: NeurIPS'21 competition track. (NeurIPS 2021
The 2nd International Workshop on Deep Learning for Pattern Recognition (DLPR 2020) (ICPR 2020)
The 2nd workshop and challenge on Target Re-Identification and Multi-Target Multi-Camera Tracking (CVPR 2019)

The 2nd International Workshop on Deep Learning for Pattern Recognition (DLPR 2018) (ICPR 2018)
The 1st workshop on Target Re-Identification and Multi-Target Multi-Camera Tracking (CVPR 2017)
The 1st International Workshop on Deep Learning for Pattern Recognition (DLPR 2016), (ICPR 2016)
Big Media Data: Understanding, Search, and Mining (ICDM 2015)
Advances in LargeScale Multimedia Data Collection, Mining and Retrieval (ICME 2012)

Special issue guest editor
Human Pose Estimation and Its Applications (Machine Vision and Applications, 2023)
Fine-grained image categorization (IEEE Trans. Pattern Anal. Mach. Intell., 2018)
Intelligent urban computing with big data (Machine Vision and Applications, 2017)
Big Media Data: Understanding, Search, and Mining (IEEE Transactions on Big Data, 2016)
Ad Hoc Web Multimedia Analysis with Limited Supervision (Multimedia Tools and Applications, 2015)

Programme committee members or conference reviewers
ICML (2018), ICLR (2018 - 2019), CVPR (2009 - 2016, 2018), ICCV (2007/09/11/13/15), ECCV (2010/12/14), ACMMM (2009/12/13/14/17), NIPS (2014 - 2018) SIGIR (2011/13), SIGGRAPH Asia (2010), SIGKDD (2010), SIGCHI (2010), IJCAI (2011/13), ICMR (2011/12), ICME (2009/10/11), CIVR (2010), IJCNN (2007/09), ACCV (2007), ICPR (2006)

Honors and Awards

Fellow	CAE	2024
Fellow	IEEE	2022
The second prize	Natural science of China Society of Image and Graphics	2022
Fellow	AAIA	2021
Featured ACM Member	ACM	2021
Outstanding service award	ICME	2019
ACM Distinguished Member	ACM	2018
Fellow	IAPR	2018
Best paper runner up	Workshop on Big Data Analytics for Social Computing	2018
The first prize	Natural science of Ministry of Education of China	2017
Best paper runner-up	ACMMM	2015
Outstanding reviewer	CVPR	2014
Gold star	Microsoft	2009
Graduate Fellowship	HKUST	2004 - 2007
Excellent Master Degree Thesis Award	Tsinghua University	2004
Excellent Master Scholarship	Tsinghua University	2003
Title of Graduate with Honors (top 5%)	Tsinghua University	2001
Rockwell Scholarship	Tsinghua University	2000
Friend-Eastern Communications Scholarship	Tsinghua University	1999
Outstanding Student Scholarship	Tsinghua University	1998
Rank #1	nuScenes tracking task (camera) leaderboard	11/2022
Rank #1	nuScenes tracking task (Lidar) leaderboard	11/2022
Rank #1	COCO object detection leaderboard	11/8/2022
Rank #1	standard English and Chinese benchmarks	05/2022
Rank #1	cityscapes segmentation leaderboard	01/2020
Second place	COCO keypoints detection challenge (ECCV 2018)	2018

Publications (Google Scholar citations: 53095, h-index: 97)

Book

[1] Jingdong Wang. Graph Based Image Segmentation: A Modern Approach. *ISBN-10: 3639110749, ISBN-13: 978-3639110746.* VDM Verlag Dr. Muller Aktiengesellschaft & Co. KG. 2008.

Book chapters

[1] Jingdong Wang, **Jing Wang**, Gang Zeng, Rui Gan, Shipeng Li, and Baining Guo. Fast Neighborhood Graph Search using Cartesian Concatenation. *Multimedia Data Mining and Analytics: Disruptive Innovation. Edited by Aaron K. Baughman, Jiang Gao, Jia-Yu Pan, and Valery Petrushin*, 397-417, Springer, 2015.

[2] Jingdong Wang, **Jing Wang**, Qifa Ke, Gang Zeng, and Shipeng Li. Fast Approximate K-Means via Cluster Closures. *Multimedia Data Mining and Analytics: Disruptive Innovation. Edited by Aaron K. Baughman, Jiang Gao, Jia-Yu Pan, and Valery Petrushin*, 373-395, Springer, 2015.

[3] Jingdong Wang, **Yinghai Zhao**, and Xian-Sheng Hua. Image Search by Color Map. *Internet Multimedia Search and Mining. Edited by Xian-Sheng Hua, Marcel Worring, and Tat-Seng Chua.* Bentham Science Publishers, 2010.

Technical reports

[1] Kai Chen, Jiaqi Wang, Jiangmiao Pang, Yuhang Cao, Yu Xiong, Xiaoxiao Li, Shuyang Sun, Wansen Feng, Ziwei Liu, Jiarui Xu, Zheng Zhang, Dazhi Cheng, Chenchen Zhu, Tianheng Cheng, Qijie Zhao, Buyu Li, Xin Lu, Rui Zhu, Yue Wu, Jifeng Dai, Jingdong Wang, Jianping Shi, Wanli Ouyang, Chen Change Loy, and Dahua Lin. MMDetection: Open MMLab Detection Toolbox and Benchmark. *CoRR*, abs/1906.07155, 2019.

[2] **Liming Zhao**, Jingdong Wang, Xi Li, Zhuowen Tu, and Wenjun Zeng. On the connection of deep fusion to ensembling. *CoRR*, abs/1611.07718, 2016.

[3] Jingdong Wang, **Zhen Wei**, **Ting Zhang**, and Wenjun Zeng. Deeply-fused nets. *CoRR*, abs/1605.07716, 2016.

Top referred journals: TPAMI (12), IJCV (10), TOG (3), TIP (8), TMM (7), TOMM (2), TKDE (1)

[1] **Xiaokang Chen**, **Mingyu Ding**, Xiaodi Wang, Ying Xin, Shentong Mo, Yunhao Wang, Shumin Han, Ping Luo, Gang Zeng, and Jingdong Wang. Context Autoencoder for Self-Supervised Representation Learning. *International Journal of Computer Vision*, 2024.

[2] Wenhao Wu, Zhun Sun, Yuxin Song, Jingdong Wang, and Wanli Ouyangg. Transferring Vision-Language Models for Visual Recognition: A Classifier Perspective. *International Journal of Computer Vision*, 2023.

[3] **Yifan Liu**, Changyong Shu, Jingdong Wang, and Chunhua Shen. Structured Knowledge Distillation for Dense Prediction. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2023.

[4] Yan Huang, Jingdong Wang, and Liang Wang. Few-Shot Image and Sentence Matching via Aligned Cross-Modal Memory. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2022.

[5] Yuhui Yuan, Lang Huang, Jianyuan Guo, Chao Zhang, Xilin Chen and Jingdong Wang. OCNet: Object Context for Semantic Segmentation. *International Journal of Computer Vision*, 2021.

[6] Jingdong Wang, **Ke Sun**, **Tianheng Cheng**, **Borui Jiang**, **Chaorui Deng**, **Yang Zhao**, Dong Liu, Yadong Mu, Mingkui Tan, Xinggang Wang, Wenyu Liu, and Bin Xiao. Deep High-Resolution Representation Learning for Visual Recognition. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2021.

[7] **Jingchun Cheng**, Yuhui Yuan, Yali Li, Jingdong Wang, and Shengjin Wang. Learning to Segment Video Object With Accurate Boundaries. *IEEE Trans. Multimedia*, 2021.

[8] **Dengpan Fu**, Bo Xin, Jingdong Wang, Dongdong Chen, Jianmin Bao, Gang Hua and Houqiang Li Improving Person Re-Identification With Iterative Impression Aggregations. *IEEE Trans. Image Processing*, 2020.

[9] **Zilong Huang**, Chunyu Wang, Xinggang Wang, Wenyu Liu, and Jingdong Wang Semantic Image Segmentation by Scale-Adaptive Networks. *IEEE Trans. Image Processing*, 2019.

[10] **Peng Tang**, Chunyu Wang, Xinggang Wang, Wenyu Liu, and Jingdong Wang. Object Detection in Videos by High Quality Object Linking. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2020.

[11] **Song Bai**, Zhichao Zhou, Jingdong Wang, Xiang Bai, Longin Jan Latecki and Qi Tian. Automatic Ensemble Diffusion for 3D Shape and Image Retrieval. *IEEE Trans. Image Processing*, 28(1):88-101, 2019.

[12] Jingdong Wang and **Ting Zhang**. Composite Quantization. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2019.

[13] **Qiurui Wang**, Chun Yuan, Jingdong Wang and Wenjun Zeng. Learning Attentional Recurrent Neural Network for Visual Tracking. *IEEE Trans. Multimedia*, 2019.

[14] **Hong Liu**, Rongrong Ji, Jingdong Wang, and Chunhua Shen. Ordinal Constraint Binary Coding for Approximate Nearest Neighbor Search. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2019.

[15] Jingdong Wang, **Ting Zhang**, **Jingkuan Song**, Nicu Sebe, and Heng Tao Shen. A Survey on Learning to Hash. *IEEE Trans. Pattern Anal. Mach. Intell.*, 40(4):769-790, 2018.

[16] **Na Qi**, Yunhui Shi, Xiaoyan Sun, Jingdong Wang, Baocai Yin, and Junbin Gao. Multi-Dimensional Sparse Models. *IEEE Trans. Pattern Anal. Mach. Intell.*, 40(1):163-178, 2018.

[17] Weiyao Lin, Yang Shen, Junchi Yan, Mingliang Xu, Jianxin Wu, Jingdong Wang, and Ke Lu. Learning Correspondence Structures for Person Re-identification. *IEEE Trans. Image Processing*, 26(5):2438-2453, 2017.

[18] **Dapeng Chen**, Zejian Yuan, Jingdong Wang, Gang Hua, and Nanning Zheng. Examplar-Guided Similarity Learning on Polynomial Feature Map for Person Re-Identification. *International Journal of Computer Vision*, 123(3):392-414, 2017.

[19] Jingdong Wang, **Huaizu Jiang**, Zejian Yuan, Ming-Ming Cheng, Xiaowei Hu, and Nanning Zheng. Salient Object Detection: A Discriminative Regional Feature Integration Approach. *International Journal of Computer Vision*, 123(2):251-268, 2017.

[20] **Lingxi Xie**, JingdongWang, Weiyao Lin, Bo Zhang, and Qi Tian. Towards Reversal-Invariant Image Representation. *International Journal of Computer Vision*, 123(2):226-250, 2017.

[21] **Dapeng Chen**, Zejian Yuan, Gang Hua, Jingdong Wang, and Nanning Zheng. Multi-Timescale Collaborative Tracking. *IEEE Trans. Pattern Anal. Mach. Intell.*, 39(1):141–155, 2017.

[22] **Liang Zheng**, Shengjin Wang, Jingdong Wang, and Qi Tian. Accurate image search with multi-scale contextual evidences. *International Journal of Computer Vision*, 120(1):1–13, 2016.

[23] **Dingwen Zhang**, Junwei Han, Chao Li, Jingdong Wang, and Xuelong Li. Detection of co-salient objects by looking deep and wide. *International Journal of Computer Vision*, 120(2):215–232, 2016.

[24] Xi Li, Xueyi Zhao, Zhongfei Zhang, Fei Wu, Yueting Zhuang, Jingdong Wang, and Xuelong Li. Joint multilabel classification with community-aware label graph learning. *IEEE Trans. Image Processing*, 25(1):484–493, 2016.

[25] Weiyao Lin, **Yang Mi**, Weiyue Wang, Jianxin Wu, Jingdong Wang, and Tao Mei. A diffusion and clustering-based approach for finding coherent motions and understanding crowd scenes. *IEEE Trans. Image Processing*, 25(4):1674–1687, 2016.

[26] Xi Li, Liming Zhao, Lina Wei, Ming-Hsuan Yang, Fei Wu, Yueting Zhuang, Haibin Ling, and Jingdong Wang. Deepsaliency: Multi-task deep neural network model for salient object detection. *IEEE Trans. Image Processing*, 25(8):3919–3930, 2016.

[27] **Jingkuan Song**, Heng Tao Shen, Jianfeng Wang, Zi Huang, Nicu Sebe, and Jingdong Wang. A distance-computation-free search scheme for binary code databases. *IEEE Trans. Multimedia*, 18(3):484–495, 2016.

[28] Jinhui Tang, **Xiangbo Shu**, Zechao Li, Guo-Jun Qi, and Jingdong Wang. Generalized deep transfer networks for knowledge propagation in heterogeneous domains. *ACM TOMCCAP*, 12(4s):68:1–68:22, 2016.

[29] **Jianfeng Wang**, Jingdong Wang, Jingkuan Song, Xin-Shun Xu, Heng Tao Shen, and Shipeng Li. Optimized Cartesian k-means. *IEEE Trans. Knowl. Data Eng.*, 27(1):180–192, 2015.

[30] **Lingxi Xie**, Jingdong Wang, Bo Zhang, and Qi Tian. Fine-grained image search. *IEEE Trans. Multimedia*, 17(5):636–647, 2015.

[31] Jingdong Wang, **Naiyan Wang**, **You Jia**, Jian Li, Gang Zeng, Hongbin Zha, and Xian-Sheng Hua. Trinary-projection trees for approximate nearest neighbor search. *IEEE Trans. Pattern Anal. Mach. Intell.*, 36(2):388–403, 2014.

[32] Jingdong Wang, **Huaizu Jiang**, **Yangqing Jia**, Xian-Sheng Hua, Changshui Zhang, and Long Quan. Regularized tree partitioning and its application to unsupervised image segmentation. *IEEE Trans. Image Processing*, 23(4):1909–1922, 2014.

[33] Qinghua Huang, **Bisheng Chen**, Jingdong Wang, and Tao Mei. Personalized video recommendation through graph propagation. *ACM TOMCCAP*, 10(4):32:1–32:17, 2014.

[34] **Peng Wang**, Gang Zeng, Rui Gan, Jingdong Wang, and Hongbin Zha. Structure-sensitive superpixels via geodesic distance. *International Journal of Computer Vision*, 103(1):1–21, 2013.

[35] Houqiang Li, **Yang Wang**, Tao Mei, Jingdong Wang, and Shipeng Li. Interactive multimodal visual search on mobile device. *IEEE Trans. Multimedia*, 15(3):594–607, 2013.

[36] **Tianjia Shao**, Weiwei Xu, Kun Zhou, Jingdong Wang, Dongping Li, and Baining Guo. An interactive approach to semantic modeling of indoor scenes with an RGBD camera. *ACM Trans. Graph*, 31(6):136:1–136:11, 2012.

[37] Tie Liu, Zejian Yuan, Jian Sun, Jingdong Wang, Nanning Zheng, Xiaoou Tang, and Heung-Yeung Shum. Learning to detect a salient object. *IEEE Trans. Pattern Anal. Mach. Intell.*, 33(2):353–367, 2011.

[38] **Xinmei Tian**, Linjun Yang, Jingdong Wang, Xiuqing Wu, and Xian-Sheng Hua. Bayesian visual reranking. *IEEE Trans. Multimedia*, 13(4):639–652, 2011.

[39] Jingdong Wang, Fei Wang, Changshui Zhang, Helen C. Shen, and Long Quan. Linear neighborhood propagation and its applications. *IEEE Trans. Pattern Anal. Mach. Intell.*, 31(9):1600–1615, 2009.

[40] Tie Liu, Jingdong Wang, Jian Sun, Nanning Zheng, Xiaoou Tang, and Heung-Yeung Shum. Picture collage. *IEEE Trans. Multimedia*, 11(7):1225–1239, 2009.

[41] Long Quan, Jingdong Wang, Ping Tan, and Lu Yuan. Image-based modeling by joint segmentation. *International Journal of Computer Vision*, 75(1):135–150, 2007.

[42] Ping Tan, Gang Zeng, Jingdong Wang, Sing Bing Kang, and Long Quan. Image-based tree modeling. *ACM Trans. Graph*, 26(3):87, 2007.

[43] Long Quan, Ping Tan, Gang Zeng, Lu Yuan, Jingdong Wang, and Sing Bing Kang. Image-based plant modeling. *ACM Trans. Graph*, 25(3):599–604, 2006.

Referred journals

[1] **Guotian Xie**, Kuiyuan Yang, Ting Zhang, Jingdong Wang, and Jianhuang Lai. Balanced Decoupled Spatial Convolution for CNNs. *IEEE Trans. Neural Netw. Learning Syst.*, 2019.

[2] Shengkang Yu, Xi Li, Xueyi Zhao, Zhongfei Mark Zhang, Fei Wu, Jingdong Wang, Yue Ting Zhuang, and Xuelong Li. A bilinear ranking SVM for knowledge based relation prediction and classification. *IEEE Trans. Big Data*, 2018.

[3] Ruoyu Liu, Shikui Wei, Yao Zhao, Zhenfeng Zhu, and Jingdong Wang. Multi-View Cross-Media Hashing with Semantic Consistency. *IEEE MultiMedia*, 2018.

[4] **Baoguang Shi**, Xiang Bai, Wenyu Liu, and Jingdong Wang. Face Alignment with Deep Regression. *IEEE Trans. Neural Netw. Learning Syst.*, 29(1):183-194, 2018.

[5] **Lingxi Xie**, Jingdong Wang, Bo Zhang, and Qi Tian. Incorporating visual adjectives for image classification. *Neurocomputing*, 182:48–55, 2016.

[6] **Min Tan**, Baoyuan Wang, Zhaohui Wu, Jingdong Wang, and Gang Pan. Weakly supervised metric learning for traffic sign recognition in a lidar-equipped vehicle. *IEEE Trans. Intelligent Transportation Systems*, 17(5):1415–1427, 2016.

[7] Congyan Lang, Jiashi Feng, Songhe Feng, Jingdong Wang, and Shuicheng Yan. Dual low-rank pursuit: Learning salient features for saliency detection. *IEEE Trans. Neural Netw. Learning Syst.*, 27(6):1190–1200, 2016.

[8] **Shiyang Lu**, Tao Mei, Jingdong Wang, Jian Zhang, Zhiyong Wang, and Shipeng Li. Exploratory product image search with circle-to-search interaction. *IEEE Trans. Circuits Syst. Video Techn.*, 25(7):1190–1202, 2015.

[9] Weiwei Xu, Zhouxu Shi, Mingliang Xu, Kun Zhou, Jingdong Wang, Bin Zhou, Jinrong Wang, and Zhenming Yuan. Transductive 3d shape segmentation using sparse reconstruction. *Comput. Graph. Forum*, 33(5):107–115, 2014.

[10] Jingdong Wang, **Jiazhen Zhou**, **Hao Xu**, Tao Mei, Xian-Sheng Hua, and Shipeng Li. Image tag refinement by regularized latent Dirichlet allocation. *Computer Vision and Image Understanding*, 124:61–70, 2014.

[11] **Shiyang Lu**, Tao Mei, Jingdong Wang, Jian Zhang, Zhiyong Wang, and Shipeng Li. Browse-to-search: Interactive exploratory search with visual entities. *ACM Trans. Inf. Syst.*, 32(4):18:1–18:27, 2014.

[12] Jingdong Wang, **Zhe Zhao**, **Jiazhen Zhou**, Hao Wang, Bin Cui, and Guojun Qi. Recommending Flickr groups with social topic model. *Inf. Retr.*, 15(3-4):278–295, 2012.

[13] **Tianjia Shao**, Weiwei Xu, KangKang Yin, Jingdong Wang, Kun Zhou, and Baining Guo. Discriminative sketch-based 3d model retrieval via robust shape matching. *Comput. Graph. Forum*, 30(7):2011–2020, 2011.

[14] Jingdong Wang, **Liyan Jia**, and Xian-Sheng Hua. Interactive browsing via diversified visual summarization for image search results. *Multimedia Syst.*, 17(5):379–391, 2011.

[15] Jingdong Wang, **Yinghai Zhao**, Xiuqing Wu, and Xian-Sheng Hua. A transductive multi-label learning approach for video concept detection. *Pattern Recognition*, 44(10-11):2274–2286, 2011.

[16] Jingdong Wang and Xian-Sheng Hua. Interactive image search by color map. *ACM TIST*, 3(1):12:1–12:23, 2011.

[17] **Zheng-Jun Zha**, Tao Mei, Jingdong Wang, Zengfu Wang, and Xian-Sheng Hua. Graph-based semi-supervised learning with multiple labels. *J. Visual Communication and Image Representation*, 20(2):97–103, 2009.

[18] Fei Wang, Jingdong Wang, Changshui Zhang, and James T. Kwok. Face recognition using spectral features. *Pattern Recognition*, 40(10):2786–2797, 2007.

[19] Jianguo Lee, Jingdong Wang, Changshui Zhang, and Zhaoqi Bian. Visual object recognition using probabilistic kernel subspace similarity. *Pattern Recognition*, 38(7):997–1008, 2005.

Top refereed conferences: CVPR (56), ICCV (31), ECCV (16), ACMMM (16), SIGGRAPH (2), SIGGRAPH ASIA (1), NeurIPS (9), ICLR (4), ICML (6), SIGIR (3), KDD (1), IJCAI (5), AAAI (7)

[1] Xingyu Wan, Chengquan Zhang, Pengyuan Lyu, Sen Fan, Zihan Ni, Kun Yao, Errui Ding, and Jingdong Wang. Towards Unified Multi-granularity Text Detection with Interactive Attention. *ICML 2024.*

[2] Zhiyu Yao, Jian Wang, Haixu Wu, Jingdong Wang, and Mingsheng Long. Mobile Attention: Mobile-Friendly Linear-Attention for Vision Transformers. *ICML 2024.*

[3] hexi Peng, Tianjia Shao, Yong Liu, Jingke Zhou, Yin Yang, Jingdong Wang, and Kun Zhou. RTG-SLAM: Real-time 3D Reconstruction at Scale using Gaussian Splatting. *SIGGRAPH 2024.*

[4] Chuyang Zhao, Yifan Sun, Wenhao Wang, Qiang Chen, Errui Ding, Yi Yang, and Jingdong Wang. MS-DETR: Efficient DETR Training with Mixed Supervision. *CVPR 2024.*

[5] Huan Liu, Zichang Tan, Chuangchuang Tan, Yunchao Forgery-aware Adaptive Transformer for Generalizable Synthetic Image Detection. *CVPR 2024.*

[6] Hao Li, Dingwen Zhang, Yalun Dai, Nian Liu, Lechao Cheng, Li Jingfeng, Jingdong Wang, and Junwei Han. GP-NeRF: Generalized Perception NeRF for Context-Aware 3D Scene Understanding . *CVPR 2024.*

[7] Yanpeng Sun, Jiahui Chen, Shan Zhang, Xinyu Zhang, Qiang Chen, Gang Zhang, Errui Ding, Jingdong Wang, and Zechao Li. VRP-SAM: SAM with Visual Reference Prompt. *CVPR 2024.*

[8] Haochen Han, Qinghua Zheng, Guang Dai, Minnan Luo, and Jingdong Wang. Learning to Rematch Mismatched Pairs for Robust Cross-Modal Retrieval. *CVPR 2024.*

[9] Wenjie Wang, Yehao Lu, Guangcong Zheng, Shuigenzhan, Xiaoqing Ye, Zichang Tan, Jingdong Wang, Gaoang Wang, and Xi Li. BEVSpread: Spread Voxel Pooling for Birds-Eye-View Representation in Vision-based Roadside 3D Object Detection. *CVPR 2024.*

[10] Jiacheng Zhang, Jiaming Li, Xiangru Lin, Wei Zhang, Xiao Tan, Junyu Han, Errui Ding, Jingdong Wang, and Guanbin Li. Decoupled Pseudo-labeling for Semi-Supervised Monocular 3D Object Detection. *CVPR 2024.*

[11] Zhuohang Dang, Minnan Luo, Chengyou Jia, Guang Dai, Xiaojun Chang, and Jingdong Wang. Noisy Correspondence Learning with Self-Reinforcing Errors Mitigation. *AAAI 2024.*

[12] Chengyou Jia, Minnan Luo, Zhuohang Dang, Guang Dai, Xiaojun Chang, Mengmeng Wang, and Jingdong Wang. SSMG: Spatial-Semantic Map Guided Diffusion Model for Free-Form Layout-to-Image Generation. *AAAI 2024.*

[13] Keyao Wang, Guosheng Zhang, Haixiao Yue, Ajian Liu, Gang Zhang, Haocheng Feng, Junyu Han, Errui Ding, and Jingdong Wang. Multi-Domain Incremental Learning for Face Presentation Attack Detection. *AAAI 2024.*

[14] Mengmeng Wang, Jiazheng Xing, Boyuan Jiang, Jun Chen, Jianbiao Mei, Xingxing Zuo, Guang Dai, Jingdong Wang, and Yong Liu. A Multimodal, Multi-Task Adapting Framework for Video Action Recognition. *AAAI 2024.*

[15] Junkun Yuan, Xinyu Zhang, Hao Zhou, Jian Wang, Zhongwei Qiu, Zhiyin Shao, Shaofeng Zhang, Sifan Long, Kun Kuang, Kun Yao, Junyu Han, Errui Ding, Lanfen Lin, Fei Wu, and Jingdong Wang. HAP: Structure-Aware Masked Image Modeling for Human-Centric Perception. *NeurIPS 2023.*

[16] Linyan Huang, Zhiqi Li, Chonghao Sima, Wenhai Wang, Jingdong Wang, Yu Qiao, and Hongyang Li. Leveraging Vision-Centric Multi-Modal Expertise for 3D Object Detection. *NeurIPS 2023.*

[17] Zhengdong Hu, Yifan Sun, Jingdong Wang, and Yi Yang. DAC-DETR: Divide the Attention Layers and Conquer. *NeurIPS 2023.*

[18] Kaisiyuan Wang, Hang Zhou, Qianyi Wu, Jiaxiang Tang, Zhiliang Xu, Borong Liang, Tianshu Hu, Errui Ding, Jingtuo Liu, Ziwei Liu, and Jingdong Wang. Efficient Video Portrait Reenactment via Grid-based Codebook. *SIGGRAPH 2023.*

[19] **Bo Fang**, Wenhao Wu, Chang Liu, Yu Zhou, Yuxin Song, Weiping Wang, Xiangbo Shu, Xiangyang Ji, and Jingdong Wang. UATVR: Uncertainty-Adaptive Text-Video Retrieval. *ICCV 2023.*

[20] **Lizhao Liu**, Zhuangwei Zhuang, Shangxin Huang, Xunlong Xiao, Tianhang Xiang, Cen Chen, Jingdong Wang, and Mingkui Tan. CPCM: Contextual Point Cloud Modeling for Weakly-supervised Point Cloud Semantic Segmentation. *ICCV 2023.*

[21] **Jiaxiang Tang**, Hang Zhou, Xiaokang Chen, Tianshu Hu, Errui Ding, Jingdong Wang, and Gang Zeng. Delicate Textured Mesh Recovery from NeRF via Adaptive Surface Refinement. *ICCV 2023.*

[22] **Huan Liu**, Qiang Chen, Zichang Tan, Jiang-Jiang Liu, Jian Wang, Xiangbo Su, Xiaolong Li, Kun Yao, Junyu Han, Errui Ding, Yao Zhao, and Jingdong Wang. Group Pose: A Simple Baseline for End-to-End Multi-person Pose Estimation. *ICCV 2023.*

[23] Qiang Chen, Xiaokang Chen, Jian Wang, Shan Zhang, Kun Yao, Haocheng Feng, Junyu Han, Errui Ding, Gang Zeng, and Jingdong Wang. Group DETR: Fast DETR Training with Group-Wise One-to-Many Assignment. *ICCV 2023.*

[24] **Shan Zhang**, **Jinhao Du**, Qiang Chen, Haifeng Le, Yanpeng Sun, Yao Ni, Jian Wang, Bin He, and Jingdong Wang. -Adaptive Decoupled Prototype for Few-Shot Object Detection. *ICCV 2023.*

[25] Wenhao Wu, Yuxin Song, Zhun Sun, Jingdong Wang, Chang Xu, and Wanli Ouyang. What Can Simple Arithmetic Operations Do for Temporal Modeling? *ICCV 2023.*

[26] **Zhiyin Shao**, Xinyu Zhang, Changxing Ding, Jian Wang, and Jingdong Wang Unified Pre-training with Pseudo Texts for Text-To-Image Person Re-identification. *ICCV 2023.*

[27] **Jiaming Li**, Xiangru Lin, Wei Zhang, Xiao Tan, Yingying Li, Junyu Han, Errui Ding, Jingdong Wang, and Guanbin Li. Gradient-based Sampling for Class Imbalanced Semi-supervised Object Detection. *ICCV 2023.*

[28] **Jiazheng Xing**, Mengmeng Wang, Yudi Ruan, Bofan Chen, Yaowei Guo, Boyu Mu, Guang Dai, Jingdong Wang, and Yong Liu. Boosting Few-shot Action Recognition with Graph-guided Hybrid Matching. *ICCV 2023.*

[29] **Sifan Long**, **Zhen Zhao**, **Junkun Yuan**, Zichang Tan, Jiang-Jiang Liu, Shengsheng Wang, Luping Zhou, and Jingdong Wang. Task-Oriented Multi-Modal Mutual Leaning for Vision-Language Models. *ICCV 2023.*

[30] **Xiang Guo**, Jiadai Sun, Yuchao Dai, Guanying Chen, Xiaoqing Ye, Xiao Tan, Errui Ding, Yumeng Zhang, and Jingdong Wang. Forward Flow for Novel View Synthesis of Dynamic Scenes. *ICCV 2023.*

[31] **Shuo Li**, Yue He, Weiming Zhang, Wei Zhang, Xiao Tan, Junyu Han, Errui Ding, and Jingdong Wang. CFCG: Semi-Supervised Semantic Segmentation via Cross-Fusion and Contour Guidance Supervision. *ICCV 2023.*

[32] **Zhen Zhao**, Lihe Yang, Sifan Long, Jimin Pi, Luping Zhou, and Jingdong Wang. Augmentation Matters: A Simple-Yet-Effective Approach to Semi-Supervised Semantic Segmentation. *CVPR 2023.*

[33] **Zhen Zhao**, Sifan Long, Jimin Pi, Jingdong Wang, and Luping Zhou. Instance-Specific and Model-Adaptive Supervision for Semi-Supervised Semantic Segmentation. *CVPR 2023.*

[34] **Chang Liu**, Weiming Zhang, Xiangru Lin, Wei Zhang, Xiao Tan, Junyu Han, Xiaomao Li, Errui Ding, and Jingdong Wang. Ambiguity-Resistant Semi-Supervised Learning for Dense Object Detection. *CVPR 2023.*

[35] Wenhao Wu, Xiaohan Wang, Haipeng Luo, Jingdong Wang, Yi Yang, and Wanli Ouyang. Bidirectional Cross-Modal Knowledge Exploration for Video Recognition With Pre-Trained Vision-Language Models. *CVPR 2023.*

[36] **Jiazhi Guan**, Zhanwang Zhang, Hang Zhou, Tianshu Hu, Kaisiyuan Wang, Dongliang He, Haocheng Feng, Jingtuo Liu, Errui Ding, Ziwei Liu, and Jingdong Wang. StyleSync: High-Fidelity Generalized and Personalized Lip Sync in Style-Based Generator. *CVPR 2023.*

[37] **Kaixin Xiong**, Shi Gong, Xiaoqing Ye, Xiao Tan, Ji Wan, Errui Ding, Jingdong Wang, and Xiang Bai. CAPE: Camera View Position Embedding for Multi-View 3D Object Detection. *CVPR 2023.*

[38] **Zhongwei Qiu**, Qiansheng Yang, Jian Wang, Haocheng Feng, Junyu Han, Errui Ding, Chang Xu, Dongmei Fu, and Jingdong Wang. PSVT: End-to-End Multi-Person 3D Pose and Shape Estimation With Progressive Video Transformers *CVPR 2023.*

[39] **Sifan Long**, **Zhen Zhao**, Jimin Pi, Shengsheng Wang, and Jingdong Wang. Beyond Attentive Tokens: Incorporating Token Importance and Diversity for Efficient Vision Transformers. *CVPR 2023.*

[40] **Jiacheng Zhang**, Xiangru Lin, Wei Zhang, Kuo Wang, Xiao Tan, Junyu Han, Errui Ding, Jingdong Wang, and Guanbin Li. Semi-DETR: Semi-Supervised Object Detection With Detection Transformers. *CVPR 2023.*

[41] Wenhao Wu, Haipeng Luo, Bo Fang, Jingdong Wang, and Wanli Ouyang. Cap4Video: What Can Auxiliary Captions Do for Text-Video Retrieval? *CVPR 2023.*

[42] Yuechen Yu, Yulin Li, Chengquan Zhang, Xiaoqiang Zhang, Zengyuan Guo, Xiameng Qin, Kun Yao, Junyu Han, Errui Ding, and Jingdong Wang. StrucTexTv2: Masked Visual-Textual Prediction for Document Image Pre-training. *ICLR 2023.*

[43] **Xiaohu Huang**, Hao Zhou, Jian Wang, Haocheng Feng, Junyu Han, Errui Ding, Jingdong Wang, Xinggang Wang, Wenyu Liu, and Bin Feng. Graph Contrastive Learning for Skeleton-based Action Recognition. *ICLR 2023.*

[44] Kaisiyuan Wang, Changcheng Liang, Hang Zhou, Jiaxiang Tang, Qianyi Wu, Dongliang He, Zhibin Hong, Jingtuo Liu, Errui Ding, Ziwei Liu, and Jingdong Wang. Robust Video Portrait Reenactment via Personalized Representation Quantization. *AAAI 2023.*

[45] Haixiao Yue, Keyao Wang, Guosheng Zhang, Haocheng Feng, Junyu Han, Errui Ding, and Jingdong Wang. Cyclically Disentangled Feature Translation for Face Anti-spoofing. *AAAI 2023.*

[46] Pengyuan Lyu, Weihong Ma, Hongyi Wang, Yuechen Yu, Chengquan Zhang, Kun Yao, Yang Xue, and Jingdong Wang. GridFormer: Towards Accurate Table Structure Recognition via Grid Prediction. In *Proceedings of the 2023 ACM Conference on Multimedia Conference, MM 2023.*

[47] Jian Wang, Chenhui Gou, Qiman Wu, Haocheng Feng, Junyu Han, Errui Ding, and Jingdong Wang. RTFormer: Efficient Design for Real-Time Semantic Segmentation with Transformer. In *Thirty-sixth Conference on Neural Information Processing Systems, NeurIPS 2022.*

[48] Jiazhi Guan, Hang Zhou, Zhibin Hong, Errui Ding, Jingdong Wang, Chengbin Quan, Youjian Zhao. Delving into Sequential Patches for Deepfake Detection. In *Thirty-sixth Conference on Neural Information Processing Systems, NeurIPS 2022.*

[49] **Yanpeng Sun**, Qiang Chen, Xiangyu He, Jian Wang, Haocheng Feng, Junyu Han, Errui Ding, Jian Cheng, Zechao Li, Jingdong Wang. Singular Value Fine-tuning: Few-shot Segmentation requires Few-parameters Fine-tuning. In *Thirty-sixth Conference on Neural Information Processing Systems, NeurIPS 2022.*

[50] **Mingyu Ding**, Bin Xiao, Noel Codella, Ping Luo, Jingdong Wang, Lu Yuan. DaViT: Dual Attention Vision Transformers. *ECCV 2022.*

[51] **Shi Gong**, Xiaoqing Ye, Xiao Tan, Jingdong Wang, Errui Ding, Yu Zhou, Xiang Bai. GitNet: Geometric Prior-Based Transformation for Birds-Eye-View Segmentation. *ECCV 2022.*

[52] **Yang Bai**, Desen Zhou, Songyang Zhang, Jian Wang, Errui Ding, Yu Guan, Yang Long, Jingdong Wang. Action Quality Assessment with Temporal Parsing Transformer. *ECCV 2022.*

[53] Teng Xi, Yifan Sun, Deli Yu, Bi Li, Nan Peng, Gang Zhang, Xinyu Zhang, Zhigang Wang, Jinwen Chen, Jian Wang, Lufei Liu, Haocheng Feng, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. UFO: Unified Feature Optimization. *ECCV 2022.*

[54] Linfeng Li, Minyue Jiang, Yue Yu, Wei Zhang, Xiangru Lin, Yingying Li, Xiao Tan, Jingdong Wang, Errui Ding. Diverse Learner: Exploring Diverse Supervision for Semi-supervised Object Detection. *ECCV 2022.*

[55] Zhiliang Xu, Hang Zhou, Zhibin Hong, Ziwei Liu, Jiaming Liu, Zhizhi Guo, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. StyleSwap: Style-Based Generator Empowers Robust Face Swapping. *ECCV 2022.*

[56] **Haoran Wang**, Dongliang He, Wenhao Wu, Boyang Xia, Min Yang, Fu Li, Yunlong Yu, Zhong Ji, Errui Ding, Jingdong Wang. CODER: Coupled Diversity-Sensitive Momentum Contrastive Learning for Image-Text Retrieval. *ECCV 2022.*

[57] Yasheng Sun, Hang Zhou, Kaisiyuan Wang, Qianyi Wu, Zhibin Hong, Jingtuo Liu, Errui Ding, Jingdong Wang, Ziwei Liu, and Hideki Koike:. Masked Lip-Sync Prediction by Audio-Visual Contextual Exploitation in Transformers. *SIGGRAPH ASIA 2022.*

[58] **Borong Liang**, Yan Pan, Zhizhi Guo, Hang Zhou, Zhibin Hong, Xiaoguang Han, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. Expressive Talking Head Generation with Granular Audio-Visual Control. *CVPR 2022.*

[59] **Mengjun Cheng**, Yipeng Sun, Longchao Wang, Xiongwei Zhu, Kun Yao, Jie Chen, Guoli Song, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. ViSTA: Vision and Scene Text Aggregation for Cross-Modal Retrieval. *CVPR 2022.*

[60] Qiang Chen, Qiman Wu, Jian Wang, Qinghao Hu, Tao Hu, Errui Ding, Jian Cheng, Jingdong Wang. MixFormer: Mixing Features across Windows and Dimensions. *CVPR 2022.*

[61] Xinyu Zhang, Dongdong Li, Zhigang Wang, Jian Wang, Errui Ding, Javen Qinfeng Shi, Zhaoxiang Zhang, Jingdong Wang. Implicit Sample Extension for Unsupervised Person Re-Identification. *CVPR 2022.*

[62] Licheng Tang, Yiyang Cai, Jiaming Liu, Zhibin Hong, Mingming Gong, Minhu Fan, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. Few-Shot Font Generation by Learning Fine-Grained Local Styles. *CVPR 2022.*

[63] Changyong Shu, Hemao Wu, Hang Zhou, Jiaming Liu, Zhibin Hong, Changxing Ding, Junyu Han, Jingtuo Liu, Errui Ding, Jingdong Wang. Few-Shot Head Swapping in the Wild. *CVPR 2022.*

[64] Desen Zhou, Zhichao Liu, Jian Wang, Leshan Wang, Tao Hu, Errui Ding, Jingdong Wang. Human-Object Interaction Detection via Disentangled Transformer. *CVPR 2022.*

[65] **Mingyu Ding**, Yuqi Huo, Haoyu Lu, Linjie Yang, Zhe Wang, Zhiwu Lu, Jingdong Wang, and Ping Luo. Learning Versatile Neural Architectures by Propagating Network Codes. *ICLR 2022.*

[66] **Qi Han, Zejia Fan**, Qi Dai, Lei Sun, Ming-Ming Cheng, Jiaying Liu, and Jingdong Wang. On the Connection between Local Attention and Dynamic Depth-wise Convolution. *ICLR 2022.*

[67] Bo Ju, Zhikang Zou, Xiaoqing Ye, Minyue Jiang, Xiao Tan, Errui Ding, Jingdong Wang. Paint and Distill: Boosting 3D Object Detection with Semantic Passing Network. In *Proceedings of the 2022 ACM Conference on Multimedia Conference, MM 2022.*

[68] Dongdong Li, Zhigang Wang, Jian Wang, Xinyu Zhang, Errui Ding, Jingdong Wang, and Zhaoxiang Zhang. Self-Guided Hard Negative Generation for Unsupervised Person Re-Identification. *IJCAI 2022.*

[69] Qi Chen, Bing Zhao, Haidong Wang, Mingqin Li, Chuanjie Liu, Zengzhong Li, Mao Yang, and Jingdong Wang. SPANN: Highly-efficient Billion-scale Approximate Nearest Neighbor Search. In *Thirty-fifth Conference on Neural Information Processing Systems, NeurIPS 2021.*

[70] Yuhui Yuan, Rao Fu, Lang Huang, Weihong Lin, Chao Zhang, Xilin Chen, and Jingdong Wang. HRFormer: High-Resolution Transformer for Dense Prediction. In *Thirty-fifth Conference on Neural Information Processing Systems, NeurIPS 2021.*

[71] Jianming Ye, Shiliang Zhang, and Jingdong Wang. Hybrid Network Compression via Meta-Learning. In *Proceedings of the 2021 ACM Conference on Multimedia Conference, MM 2021.*

[72] **Depu Meng, Xiaokang Chen, Zejia Fan**, Gang Zeng, Houqiang Li, Yuhui Yuan, Lei Sun, and Jingdong Wang Conditional DETR for Fast Training Convergence. In *IEEE/CVF International Conference on Computer Vision, ICCV 2021.*

[73] Xiaosen Wang, Xuanran He, Jingdong Wang, and Kun He Admix: Enhancing the Transferability of Adversarial Attacks. In *IEEE/CVF International Conference on Computer Vision, ICCV 2021.*

[74] **Changqian Yu**, Bin Xiao, Changxin Gao, Lu Yuan, Lei Zhang, Nong Sang, and Jingdong Wang. Lite-HRNet: A Lightweight High-Resolution Network. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2021.*

[75] **Zigang Geng**, Ke Sun, Bin Xiao, Zhaoxiang Zhang, and Jingdong Wang. Bottom-Up Human Pose Estimation Via Disentangled Keypoint Regression. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2021.*

[76] **Xiaokang Chen**, Yuhui Yuan, Gang Zeng, and Jingdong Wang. Semi-Supervised Semantic Segmentation with Cross Pseudo Supervision. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2021.*

[77] **Baifeng Shi**, Dinghuai Zhang, Qi Dai, Zhanxing Zhu, Yadong Mu, and Jingdong Wang Informative Dropout for Robust Representation Learning: A Shape-bias Perspective. In *Proceedings of the 37th International Conference on Machine Learning*, ICML 2020.

[78] Yuhui Yuan, Xilin Chen, and Jingdong Wang. Object-Contextual Representations for Semantic Segmentation. In *European Conference Computer Vision*, ECCV 2020.

[79] Yuhui Yuan, Jingyi Xie, Xilin Chen, and Jingdong Wang. SegFix: Model-Agnostic Boundary Refinement for Segmentation. In *European Conference Computer Vision*, ECCV 2020.

[80] **Yifan liu**, Chunhua Shen, Changqian Yu, and Jingdong Wang Efficient Semantic Video Segmentation with Per-frame Inference. In *European Conference Computer Vision*, ECCV 2020.

[81] Fangyun Wei, Xiao Sun, Hongyang Li, Jingdong Wang, and Stephen Lin. Point-Set Anchors for Object Detection, Instance Segmentation and Pose Estimation. In *European Conference Computer Vision*, ECCV 2020.

[82] **Bowen Cheng**, Bin Xiao, Jingdong Wang, Honghui Shi, Thomas S. Huang, and Lei Zhang. HigherHRNet: Scale-Aware Representation Learning for Bottom-Up Human Pose Estimation. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2020*.

[83] **Baifeng Shi**, Qi Dai, Yadong Mu, and Jingdong Wang. Weakly-Supervised Action Localization by Generative Attention Modeling. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2020*.

[84] Yong Guo, Jian Chen, Jingdong Wang, Qi Chen, Jiezhang Cao, Zeshuai Deng, Yanwu Xu, and Mingkui Tan. Closed-Loop Matters: Dual Regression Networks for Single Image Super-Resolution. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2020*.

[85] **Jianing Li**, Jingdong Wang, Qi Tian, Wen Gao, and Shiliang Zhang Global-Local Temporal Representations For Video Person Re-Identification. In *IEEE/CVF International Conference on Computer Vision, ICCV 2019*.

[86] **Haibo Qiu**, Chunyu Wang, Jingdong Wang, Naiyan Wang, and Wenjun Zeng Cross View Fusion for 3D Human Pose Estimation. In *IEEE/CVF International Conference on Computer Vision, ICCV 2019*.

[87] **Ke Sun**, Bin Xiao, Dong Liu, and Jingdong Wang. Deep High-Resolution Representation Learning for Human Pose Estimation. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2019*.

[88] **Yifan Liu**, Ke Chen, Chris Liu, Zengchang Qin, Zhenbo Luo, and Jingdong Wang. Structured Knowledge Distillation for Semantic Segmentation. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2019*.

[89] Shengze Yu, Xin Wang, Wenwu Zhu, Peng Cui, and Jingdong Wang. Disparity-preserved Deep Cross-platform Association for Cross-platform Video Recommendation. In IJCAI 2019.

[90] Ruochen Fan, Ming-Ming Cheng, Qibin Hou, Tai-Jiang Mu, Jingdong Wang, Shi-Min Hu. S4Net: Single Stage Salient-Instance Segmentation. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2019*.

[91] **Xuguang Duan**, Wenbing Huang, Chuang Gan, Jingdong Wang, Wenwu Zhu, and Junzhou Huang Weakly Supervised Dense Event Captioning in Videos. In *Proceedings of Advances in Neural Information Processing Systems, NIPS 2018*.

[92] Bin Liu, Yue Cao, Mingsheng Long, Jianmin Wang, and Jingdong Wang. Deep Triplet Quantization. In *Proceedings of the 2018 ACM Conference on Multimedia Conference, MM 2018*.

[93] Hao Xiao, Weiyao Lin, Bin Sheng, Ke Lu, Junchi Yan, Jingdong Wang, Errui Ding, Yihao Zhang, Hongkai Xiong. Group Re-Identification: Leveraging and Integrating Multi-Grain Information. In *Proceedings of the 2018 ACM Conference on Multimedia Conference, MM 2018*.

[94] **Yumin Suh**, Jingdong Wang, Siyu Tang, Tao Mei, and Kyoung Mu Lee. Part-Aligned Bilinear Representations for Person Re-identification. In *European Conference Computer Vision, ECCV 2018*.

[95] **Liming Zhao**, **Mingjie Li**, **Depu Meng**, Xi Li, Zhuowen Tu, Zhaoxiang Zhang, Yueting Zhuang, and Jingdong Wang. Deep Convolutional Neural Networks with Merge-and-Run Mappings. In *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2018*.

[96] **Guotian Xie**, Jingdong Wang, Ting Zhang, Jianhuang Lai, Richang Hong, and Guo-Jun Qi. IGCV2: Interleaved Structured Sparse Convolutional Neural Networks. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2018*.

[97] **Zilong Huang**, Xinggang Wang, Jiasi Wang, Wenyu Liu, and Jingdong Wang. Weakly-Supervised Semantic Segmentation Network with Deep Seeded Region Growing. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2018*.

[98] Guo-Jun Qi, Liheng Zhang, Hao Hu, Marzieh Edraki, Jingdong Wang, and Xian-Sheng Hua. Global versus Localized Generative Adversarial Nets. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR 2018.*

[99] **Guotian Xie**, Ting Zhang, Kuiyuan Yang, Jianhuang Lai, and Jingdong Wang. Coupled Convolutions for CNNs. In *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence, New Orleans, Louisiana, USA, February 2-7, 2018*, 2018.

[100] **Ting Zhang**, Guo-Jun Qi, Bin Xiao, and Jingdong Wang. Interleaved Group Convolutions. In *IEEE International Conference on Computer Vision, ICCV 2017, Venice, Italy, October 22-29, 2017*, pages 4383-4392, 2017.

[101] **Liming Zhao**, Xi Li, Yueting Zhuang, and Jingdong Wang. Deeply-Learned Part-Aligned Representations for Person Re-Identification. In *IEEE International Conference on Computer Vision, ICCV 2017, Venice, Italy, October 22-29, 2017*, pages 3239-3248, 2017.

[102] **Ke Sun**, Cuiling Lan, Junliang Xing, Jingdong Wang, Wenjun Zeng, Dong Liu. Human Pose Estimation using Global and Local Normalization. In *IEEE International Conference on Computer Vision, ICCV 2017, Venice, Italy, October 22-29, 2017*, pages 5600-5608, 2017.

[103] **Song Bai**, Zhichao Zhou, Jingdong Wang, Xiang Bai, Longin Jan Latecki, Qi Tian. Ensemble Diffusion for Retrieval. In *IEEE International Conference on Computer Vision, ICCV 2017, Venice, Italy, October 22-29, 2017*, pages 774-783, 2017.

[104] **Lixin Liao**, Yao Zhao, Shikui Wei, and Jingdong Wang. Finding the Secret of CNN Parameter Layout under Strict Size Constraint. In *Proceedings of the 2017 ACM on Multimedia Conference, MM 2017, Mountain View, CA, USA, October 23-27, 2017*, pages 997–1005, 2017.

[105] Guo-Jun Qi, Jiliang Tang, Jingdong Wang, and Jiebo Luo. Mixture Factorized Ornstein-Uhlenbeck Processes for Time-Series Forecasting. In *Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Halifax, NS, Canada, August 13 - 17, 2017*, pages 987–995, 2017.

[106] **Gangming Zhao**, Jingdong Wang, and Zhaoxiang Zhang. Random Shifting for CNN: a Solution to Reduce Information Loss in Down-Sampling Layers. In *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2017, Melbourne, Australia, August 19-25, 2017*, pages 3476–3482, 2017.

[107] **Lingxi Xie**, **Liang Zheng**, Jingdong Wang, Alan L. Yuille, and Qi Tian. Interactive: Interlayer activeness propagation. In *2016 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2016, Las Vegas, NV, USA, June 27-30, 2016*, pages 270–279, 2016.

[108] **Xiaojuan Wang**, **Ting Zhang**, Guo-Jun Qi, Jinhui Tang, and Jingdong Wang. Supervised quantization for similarity search. In *2016 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2016, Las Vegas, NV, USA, June 27-30, 2016*, pages 2018–2026, 2016.

[109] **Ting Zhang** and Jingdong Wang. Collaborative quantization for cross-modal similarity search. In *2016 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2016, Las Vegas, NV, USA, June 27-30, 2016*, pages 2036–2045, 2016.

[110] **Lingxi Xie**, Jingdong Wang, **Zhen Wei**, Meng Wang, and Qi Tian. Disturblabel: Regularizing CNN on the loss layer. In *2016 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2016, Las Vegas, NV, USA, June 27-30, 2016*, pages 4753–4762, 2016.

[111] Lingxi Xie, Qi Tian, John Flynn, Jingdong Wang, and Alan L. Yuille. Geometric neural phrase pooling: Modeling the spatial co-occurrence of neurons. In *Computer Vision - ECCV 2016 - 14th European Conference, Amsterdam, The Netherlands, October 11-14, 2016, Proceedings, Part I*, pages 645–661, 2016.

[112] **Liang Zheng**, Zhi Bie, Yifan Sun, Jingdong Wang, Chi Su, Shengjin Wang, and Qi Tian. MARS: A video benchmark for large-scale person re-identification. In *Computer Vision - ECCV 2016 - 14th European Conference, Amsterdam, The Netherlands, October 11-14, 2016, Proceedings, Part VI*, pages 868–884, 2016.

[113] **Qi Dai**, Jianguo Li, Jingdong Wang, and Yu-Gang Jiang. Binary optimized hashing. In *Proceedings of the 2016 ACM Conference on Multimedia Conference, MM 2016, Amsterdam, The Netherlands, October 15-19, 2016*, pages 1247–1256, 2016.

[114] Jian Liang, Zhihang Li, Dong Cao, Ran He, and Jingdong Wang. Self-paced cross-modal subspace matching. In *Proceedings of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval, SIGIR 2016, Pisa, Italy, July 17-21, 2016*, pages 569–578, 2016.

[115] **Dapeng Chen**, Zejian Yuan, Gang Hua, Nanning Zheng, and Jingdong Wang. Similarity learning on an explicit polynomial kernel feature map for person re-identification. In *IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2015, Boston, MA, USA, June 7-12, 2015*, pages 1565–1573, 2015.

[116] **Dingwen Zhang**, Junwei Han, Chao Li, and Jingdong Wang. Co-saliency detection via looking deep and wide. In *IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2015, Boston, MA, USA, June 7-12, 2015*, pages 2994–3002, 2015.

[117] **Ting Zhang**, Guo-Jun Qi, Jinhui Tang, and Jingdong Wang. Sparse composite quantization. In *IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2015, Boston, MA, USA, June 7-12, 2015*, pages 4548–4556, 2015.

[118] **Lingxi Xie**, Jingdong Wang, Weiyao Lin, Bo Zhang, and Qi Tian. RIDE: reversal invariant descriptor enhancement. In *2015 IEEE International Conference on Computer Vision, ICCV 2015, Santiago, Chile, December 7-13, 2015*, pages 100–108, 2015.

[119] **Liang Zheng**, Liyue Shen, Lu Tian, Shengjin Wang, Jingdong Wang, and Qi Tian. Scalable person re-identification: A benchmark. In *2015 IEEE International Conference on Computer Vision, ICCV 2015, Santiago, Chile, December 7-13, 2015*, pages 1116–1124, 2015.

[120] **Yang Shen**, Weiyao Lin, Junchi Yan, Mingliang Xu, Jianxin Wu, and Jingdong Wang. Person re-identification with correspondence structure learning. In *2015 IEEE International Conference on Computer Vision, ICCV 2015, Santiago, Chile, December 7-13, 2015*, pages 3200–3208, 2015.

[121] **Botong Wu**, Qiang Yang, Wei-Shi Zheng, Yizhou Wang, and Jingdong Wang. Quantized correlation hashing for fast cross-modal search. In *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015*, pages 3946–3952, 2015.

[122] **Xiangbo Shu**, Guo-Jun Qi, Jinhui Tang, and Jingdong Wang. Weakly-shared deep transfer networks for heterogeneous-domain knowledge propagation. In *Proceedings of the 23rd Annual ACM Conference on Multimedia Conference, MM '15, Brisbane, Australia, October 26 - 30, 2015*, pages 35–44, 2015.

[123] **Lingxi Xie**, Jingdong Wang, Baining Guo, Bo Zhang, and Qi Tian. Orientational pyramid matching for recognizing indoor scenes. In *2014 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2014, Columbus, OH, USA, June 23-28, 2014*, pages 3734–3741, 2014.

[124] **Weiyue Wang**, Weiyao Lin, Yuanzhe Chen, Jianxin Wu, Jingdong Wang, and Bin Sheng. Finding coherent motions and semantic regions in crowd scenes: A diffusion and clustering approach. In *Computer Vision - ECCV 2014 - 13th European Conference, Zurich, Switzerland, September 6-12, 2014, Proceedings, Part I*, pages 756–771, 2014.

[125] **Ting Zhang**, **Chao Du**, and Jingdong Wang. Composite quantization for approximate nearest neighbor search. In *Proceedings of the 31th International Conference on Machine Learning, ICML 2014, Beijing, China, 21-26 June 2014*, pages 838–846, 2014.

[126] **Jianfeng Wang**, Heng Tao Shen, Shuicheng Yan, Nenghai Yu, Shipeng Li, and Jingdong Wang. Optimized distances for binary code ranking. In *Proceedings of the ACM International Conference on Multimedia, MM '14, Orlando, FL, USA, November 03 - 07, 2014*, pages 517–526, 2014.

[127] **Huaizu Jiang**, Jingdong Wang, Zejian Yuan, Yang Wu, Nanning Zheng, and Shipeng Li. Salient object detection: A discriminative regional feature integration approach. In *2013 IEEE Conference on Computer Vision and Pattern Recognition, Portland, OR, USA, June 23-28, 2013*, pages 2083–2090, 2013.

[128] **Peng Wang**, Jingdong Wang, Gang Zeng, Weiwei Xu, Hongbin Zha, and Shipeng Li. Supervised kernel descriptors for visual recognition. In *2013 IEEE Conference on Computer Vision and Pattern Recognition, Portland, OR, USA, June 23-28, 2013*, pages 2858–2865, 2013.

[129] **Naiyan Wang**, Jingdong Wang, and Dit-Yan Yeung. Online robust non-negative dictionary learning for visual tracking. In *IEEE International Conference on Computer Vision, ICCV 2013, Sydney, Australia, December 1-8, 2013*, pages 657–664, 2013.

[130] **Jing Wang**, Jingdong Wang, Gang Zeng, Rui Gan, Shipeng Li, and Baining Guo. Fast neighborhood graph search using Cartesian concatenation. In *IEEE International Conference on Computer Vision, ICCV 2013, Sydney, Australia, December 1-8, 2013*, pages 2128–2135, 2013.

[131] **Honghui Zhang**, Jingdong Wang, Ping Tan, Jinglu Wang, and Long Quan. Learning crfs for image parsing with adaptive subgradient descent. In *IEEE International Conference on Computer Vision, ICCV 2013, Sydney, Australia, December 1-8, 2013*, pages 3080–3087, 2013.

[132] **Quannan Li**, Jingdong Wang, David P. Wipf, and Zhuowen Tu. Fixed-point model for structured labeling. In *Proceedings of the 30th International Conference on Machine Learning, ICML 2013, Atlanta, GA, USA, 16-21 June 2013*, pages 214–221, 2013.

[133] **Jianfeng Wang**, Jingdong Wang, Nenghai Yu, and Shipeng Li. Order preserving hashing for approximate nearest neighbor search. In *ACM Multimedia Conference, MM '13, Barcelona, Spain, October 21-25, 2013*, pages 133–142, 2013.

[134] Xian-Sheng Hua, Linjun Yang, Jingdong Wang, **Jing Wang**, Ming Ye, Kuansan Wang, Yong Rui, and Jin Li. Clickage: towards bridging semantic and intent gaps via mining click logs of search engines. In *ACM Multimedia Conference, MM '13, Barcelona, Spain, October 21-25, 2013*, pages 243–252, 2013.

[135] **Jing Wang**, Jingdong Wang, Gang Zeng, Zhuowen Tu, Rui Gan, and Shipeng Li. Scalable k-nn graph construction for visual descriptors. In *2012 IEEE Conference on Computer Vision and Pattern Recognition, Providence, RI, USA, June 16-21, 2012*, pages 1106–1113, 2012.

[136] **Junyang Lu**, **Jiazhen Zhou**, Jingdong Wang, Tao Mei, Xian-Sheng Hua, and Shipeng Li. Image search results refinement via outlier detection using deep contexts. In *2012 IEEE Conference on Computer Vision and Pattern Recognition, Providence, RI, USA, June 16-21, 2012*, pages 3029–3036, 2012.

[137] **Jing Wang**, Jingdong Wang, Qifa Ke, Gang Zeng, and Shipeng Li. Fast approximate k-means via cluster closures. In *2012 IEEE Conference on Computer Vision and Pattern Recognition, Providence, RI, USA, June 16-21, 2012*, pages 3037–3044, 2012.

[138] **Peng Wang**, Jingdong Wang, Gang Zeng, Jie Feng, Hongbin Zha, and Shipeng Li. Salient object detection for searched web images via global saliency. In *2012 IEEE Conference on Computer Vision and Pattern Recognition, Providence, RI, USA, June 16-21, 2012*, pages 3194–3201, 2012.

[139] **Naiyan Wang**, **Tiansheng Yao**, Jingdong Wang, and Dit-Yan Yeung. A probabilistic approach to robust matrix factorization. In *Computer Vision - ECCV 2012 - 12th European Conference on Computer Vision, Florence, Italy, October 7-13, 2012, Proceedings, Part VII*, pages 126–139, 2012.

[140] Jingdong Wang and Shipeng Li. Query-driven iterated neighborhood graph search for large scale indexing. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 179–188, 2012.

[141] **Jianping Shi**, **Xiang Ren**, Guang Dai, Jingdong Wang, and Zhihua Zhang. A non-convex relaxation approach to sparse dictionary learning. In *The 24th IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2011, Colorado Springs, CO, USA, 20-25 June 2011*, pages 1809–1816, 2011.

[142] Gang Zeng, **Peng Wang**, Jingdong Wang, Rui Gan, and Hongbin Zha. Structure-sensitive superpixels via geodesic distance. In *IEEE International Conference on Computer Vision, ICCV 2011, Barcelona, Spain, November 6-13, 2011*, pages 447–454, 2011.

[143] **Hao Xu**, Jingdong Wang, Zhu Li, Gang Zeng, Shipeng Li, and Nenghai Yu. Complementary hashing for approximate nearest neighbor search. In *IEEE International Conference on Computer Vision, ICCV 2011, Barcelona, Spain, November 6-13, 2011*, pages 1631–1638, 2011.

[144] Bin Cheng, Guangcan Liu, Jingdong Wang, ZhongYang Huang, and Shuicheng Yan. Multi-task low-rank affinity pursuit for image segmentation. In *IEEE International Conference on Computer Vision, ICCV 2011, Barcelona, Spain, November 6-13, 2011*, pages 2439–2446, 2011.

[145] **Yang Wang**, Tao Mei, Jingdong Wang, Houqiang Li, and Shipeng Li. JIGSAW: interactive mobile visual search with multimodal queries. In *Proceedings of the 19th International Conference on Multimedia 2011, Scottsdale, AZ, USA, November 28 - December 1, 2011*, pages 73–82, 2011.

[146] **Wenhao Lu**, Jingdong Wang, Xian-Sheng Hua, Shengjin Wang, and Shipeng Li. Contextual image search. In *Proceedings of the 19th International Conference on Multimedia 2011, Scottsdale, AZ, USA, November 28 - December 1, 2011*, pages 513–522, 2011.

[147] **Nobuyuki Morioka** and Jingdong Wang. Robust visual reranking via sparsity and ranking constraints. In *Proceedings of the 19th International Conference on Multimedia 2011, Scottsdale, AZ, USA, November 28 - December 1, 2011*, pages 533–542, 2011.

[148] **Dan Zhang**, Jingdong Wang, and Luo Si. Document clustering with universum. In *Proceeding of the 34th International ACM SIGIR Conference on Research and Development in Information Retrieval, SIGIR 2011, Beijing, China, July 25-29, 2011*, pages 873–882, 2011.

[149] **You Jia**, Jingdong Wang, Gang Zeng, Hongbin Zha, and Xian-Sheng Hua. Optimizing kd-trees for scalable visual descriptor indexing. In *The Twenty-Third IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2010, San Francisco, CA, USA, 13-18 June 2010*, pages 3392–3399, 2010.

[150] **Hao Xu**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Image search by concept map. In *Proceeding of the 33rd International ACM SIGIR Conference on Research and Development in Information Retrieval, SIGIR 2010, Geneva, Switzerland, July 19-23, 2010*, pages 275–282, 2010.

[151] Jingdong Wang, **Yangqing Jia**, Xian-Sheng Hua, Changshui Zhang, and Long Quan. Normalized tree partitioning for image segmentation. In *2008 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2008), 24-26 June 2008, Anchorage, Alaska, USA*, 2008.

[152] **Zheng-Jun Zha**, Xian-Sheng Hua, Tao Mei, Jingdong Wang, Guo-Jun Qi, and Zengfu Wang. Joint multi-label multi-instance learning for image classification. In *2008 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2008), 24-26 June 2008, Anchorage, Alaska, USA*, 2008.

[153] **Xinmei Tian**, Linjun Yang, Jingdong Wang, Yichen Yang, Xiuqing Wu, and Xian-Sheng Hua. Bayesian video search reranking. In *Proceedings of the 16th International Conference on Multimedia 2008, Vancouver, British Columbia, Canada, October 26-31, 2008*, pages 131–140, 2008.

[154] Jianxiong Xiao, Jingdong Wang, Ping Tan, and Long Quan. Joint affinity propagation for multiple view segmentation. In *IEEE 11th International Conference on Computer Vision, ICCV 2007, Rio de Janeiro, Brazil, October 14-20, 2007*, pages 1–7, 2007.

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[155] Fei Wang, Jingdong Wang, Helen C. Shen, and Changshui Zhang. Semi-supervised classification using linear neighborhood propagation. In *2006 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2006), 17-22 June 2006, New York, NY, USA*, pages 160–167, 2006.

[156] Jingdong Wang, Long Quan, Jian Sun, Xiaoou Tang, and Heung-Yeung Shum. Picture collage. In *2006 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2006), 17-22 June 2006, New York, NY, USA*, pages 347–354, 2006.

[157] Jianguo Lee, Jingdong Wang, Changshui Zhang, and Zhaoqi Bian. Probabilistic tangent subspace: a unified view. In *Machine Learning, Proceedings of the Twenty-first International Conference (ICML 2004), Banff, Alberta, Canada, July 4-8, 2004*, 2004.

Refereed conferences

[1] Xiaosen Wang, Jiadong Lin, Han Hu, Jingdong Wang, and Kun He Boosting Adversarial Transferability through Enhanced Momentum. In *British Machine Vision Conference, BMVC 2021*, 2021.

[2] **Ke Sun**, **Mingjie Li**, Dong Liu, and Jingdong Wang. IGCV3: Interleaved Low-Rank Group Convolutions for Efficient Deep Neural Network. In *British Machine Vision Conference, BMVC 2018*, 2018.

[3] **Liang Zheng**, Yali Zhao, Shengjin Wang, Jingdong Wang, and Qi Tian. On the Large-Scale Transferability of the Convolutional Neural Network. In Workshop on Big Data Analytics for Social Computing (BDASC18), Melbourne, Australia, June 3-6, 2018.

[4] Yuhui Yuan, Kuiyuan Yang, Jianyuan Guo, Chao Zhang, and Jingdong Wang. Feature Incay for Representation Regularization. In ICLR, 2018.

[5] **Gangming Zhao**, Zhaoxiang Zhang, He Guan, Peng Tang, and Jingdong Wang. Rethinking ReLU to Train Better CNNs. In ICPR, 2018.

[6] **Zhansheng Jiang**, **Lingxi Xie**, Xiaotie Deng, Weiwei Xu, and Jingdong Wang. Fast nearest neighbor search in the hamming space. In *MultiMedia Modeling - 22nd International Conference, MMM 2016, Miami, FL, USA, January 4-6, 2016, Proceedings, Part I*, pages 325–336, 2016.

[7] Mengyin Wang, Zechao Li, Xiangbo Shu, Jingdong Wang, and Jinhui Tang. Deep kinship verification. In *17th IEEE International Workshop on Multimedia Signal Processing, MMSP 2015, Xiamen, China, October 19-21, 2015*, pages 1–6, 2015.

[8] Shengnan Cai, Jingdong Wang, and Long Quan. How fashion talks: Clothing-region-based gender recognition. In *Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications - 19th Iberoamerican Congress, CIARP 2014, Puerto Vallarta, Mexico, November 2-5, 2014. Proceedings*, pages 515–523, 2014.

[9] **Na Qi**, Yunhui Shi, Xiaoyan Sun, Jingdong Wang, and Wenpeng Ding. Two dimensional analysis sparse model. In *IEEE International Conference on Image Processing, ICIP 2013, Melbourne, Australia, September 15-18, 2013*, pages 310–314, 2013.

[10] **Na Qi**, Yunhui Shi, Xiaoyan Sun, Jingdong Wang, and Baocai Yin. Two dimensional synthesis sparse model. In *Proceedings of the 2013 IEEE International Conference on Multimedia and Expo, ICME 2013, San Jose, CA, USA, July 15-19, 2013*, pages 1–6, 2013.

[11] Yingwei Pan, Ting Yao, Kuiyuan Yang, Houqiang Li, Chong-Wah Ngo, Jingdong Wang, and Tao Mei. Image search by graph-based label propagation with image representation from DNN. In *ACM Multimedia Conference, MM '13, Barcelona, Spain, October 21-25, 2013*, pages 397–400, 2013.

[12] **Peng Wang**, **Dongqing Zhang**, Gang Zeng, and Jingdong Wang. Contextual dominant color name extraction for web image search. In *2012 IEEE International Conference on Multimedia and Expo Workshops, Melbourne, Australia, July 9-13, 2012*, pages 319–324, 2012.

[13] **Weiwen Tu**, Rong Pan, and Jingdong Wang. Similar image search with a tiny bag-of-delegates representation. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 885–888, 2012.

[14] **Bisheng Chen**, Jingdong Wang, Qinghua Huang, and Tao Mei. Personalized video recommendation through tripartite graph propagation. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 1133–1136, 2012.

[15] **Shiyang Lu**, Tao Mei, Jingdong Wang, Jian Zhang, Zhiyong Wang, David Dagan Feng, Jian-Tao Sun, and Shipeng Li. Browse-to-search. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 1323–1324, 2012.

[16] **Jing Wang**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Scalable similar image search by joint indices. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 1325–1326, 2012.

[17] **Peng Wang**, **Dongqing Zhang**, Jingdong Wang, Zhong Wu, Xian-Sheng Hua, and Shipeng Li. Color filter for image search. In *Proceedings of the 20th ACM Multimedia Conference, MM '12, Nara, Japan, October 29 - November 02, 2012*, pages 1327–1328, 2012.

[18] **Huaizu Jiang**, Jingdong Wang, Zejian Yuan, Tie Liu, and Nanning Zheng. Automatic salient object segmentation based on context and shape prior. In *British Machine Vision Conference, BMVC 2011, Dundee, UK, August 29 - September 2, 2011. Proceedings*, pages 1–12, 2011.

[19] Jingdong Wang and Xian-Sheng Hua. Web-scale image search by color sketch. In *Proceedings of the 19th International Conference on Multimedia 2011, Scottsdale, AZ, USA, November 28 - December 1, 2011*, pages 751–752, 2011.

[20] **Hao Xu**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Hybrid image summarization. In *Proceedings of the 19th International Conference on Multimedia 2011, Scottsdale, AZ, USA, November 28 - December 1, 2011*, pages 1217–1220, 2011.

[21] **Xiangang Cheng**, Jingdong Wang, Liang-Tien Chia, and Xian-Sheng Hua. Learning to combine multi-resolution spatially-weighted co-occurrence matrices for image representation. In *Proceedings of the 2010 IEEE International Conference on Multimedia and Expo, ICME 2010, 19-23 July 2010, Singapore*, pages 631–636, 2010.

[22] Yan Wang, Tao Mei, Jingdong Wang, and Xian-Sheng Hua. Dynamic video collage. In *Advances in Multimedia Modeling, 16th International Multimedia Modeling Conference, MMM 2010, Chongqing, China, January 6-8, 2010. Proceedings*, pages 793–795, 2010.

[23] **Hao Xu**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Interactive image search by 2d semantic map. In *Proceedings of the 19th International Conference on World Wide Web, WWW 2010, Raleigh, North Carolina, USA, April 26-30, 2010*, pages 1321–1324, 2010.

[24] **Hao Xu**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Summarizing tagged image collections by cross-media representativeness voting. In *Proceedings of the 2009 IEEE International Conference on Multimedia and Expo, ICME 2009, June 28 - July 2, 2009, New York City, NY, USA*, pages 922–925, 2009.

[25] **Hao Xu**, Jingdong Wang, Xian-Sheng Hua, and Shipeng Li. Tag refinement by regularized LDA. In *Proceedings of the 17th International Conference on Multimedia 2009, Vancouver, British Columbia, Canada, October 19-24, 2009*, pages 573–576, 2009.

[26] **Yang Hu**, Jingdong Wang, Nenghai Yu, and Xian-Sheng Hua. Maximum margin clustering with pairwise constraints. In *Proceedings of the 8th IEEE International Conference on Data Mining (ICDM 2008), December 15-19, 2008, Pisa, Italy*, pages 253–262, 2008.

[27] **Yangqing Jia**, Jingdong Wang, Changshui Zhang, and Xian-Sheng Hua. Augmented tree partitioning for interactive image segmentation. In *Proceedings of the International Conference on Image Processing, ICIP 2008, October 12-15, 2008, San Diego, California, USA*, pages 2292–2295, 2008.

[28] Jingdong Wang, **Xinmei Tian**, Linjun Yang, Zheng-Jun Zha, and Xian-Sheng Hua. Optimized video scene segmentation. In *Proceedings of the 2008 IEEE International Conference on Multimedia and Expo, ICME 2008, June 23-26 2008, Hannover, Germany*, pages 301–304, 2008.

[29] **Zheng-Jun Zha**, Tao Mei, Jingdong Wang, Zengfu Wang, and Xian-Sheng Hua. Graph-based semi-supervised learning with multi-label. In *Proceedings of the 2008 IEEE International Conference on Multimedia and Expo, ICME 2008, June 23-26 2008, Hannover, Germany*, pages 1321–1324, 2008.

[30] **Xinmei Tian**, Linjun Yang, Jingdong Wang, Xiuqing Wu, and Xian-Sheng Hua. Transductive video annotation via local learnable kernel classifier. In *Proceedings of the 2008 IEEE International Conference on Multimedia and Expo, ICME 2008, June 23-26 2008, Hannover, Germany*, pages 1509–1512, 2008.

[31] Jingdong Wang, **Yinghai Zhao**, Xiuqing Wu, and Xian-Sheng Hua. Transductive multi-label learning for video concept detection. In *Proceedings of the 1st ACM SIGMM International Conference on Multimedia Information Retrieval, MIR 2008, Vancouver, British Columbia, Canada, October 30-31, 2008*, pages 298–304, 2008.

[32] **Yangqing Jia**, Jingdong Wang, Changshui Zhang, and Xian-Sheng Hua. Finding image exemplars using fast sparse affinity propagation. In *Proceedings of the 16th International Conference on Multimedia 2008, Vancouver, British Columbia, Canada, October 26-31, 2008*, pages 639–642, 2008.

[33] **Dan Zhang**, Jingdong Wang, Fei Wang, and Changshui Zhang. Semi-supervised classification with universum. In *Proceedings of the SIAM International Conference on Data Mining, SDM 2008, April 24-26, 2008, Atlanta, Georgia, USA*, pages 323–333, 2008.

[34] Tao Mei, Zheng-Jun Zha, Yuan Liu, Meng Wang, Guo-Jun Qi, Xinmei Tian, Jingdong Wang, Linjun Yang, and Xian-Sheng Hua. MSRA att TRECVID 2008: High-level feature extraction and automatic search. In *TRECVID 2008 workshop participants notebook papers, Gaithersburg, MD, USA, November 2008*, 2008.

[35] Xing Yi, Changshui Zhang, and Jingdong Wang. Multi-view EM algorithm and its application to color image segmentation. In *Proceedings of the 2004 IEEE International Conference on Multimedia and Expo, ICME 2004, 27-30 June 2004, Taipei, Taiwan*, pages 351–354, 2004.

[36] Jingdong Wang, Jianguo Lee, and Changshui Zhang. Kernel trick embedded gaussian mixture model. In *Algorithmic Learning Theory, 14th International Conference, ALT 2003, Sapporo, Japan, October 17-19, 2003, Proceedings*, pages 159–174, 2003.

[37] Jianguo Lee, Jingdong Wang, and Changshui Zhang. Color image segmentation: Kernel do the feature space. In *Machine Learning: ECML 2003, 14th European Conference on Machine Learning, Cavtat-Dubrovnik, Croatia, September 22-26, 2003, Proceedings*, pages 253–264, 2003.

[38] Jingdong Wang, Jianguo Lee, and Changshui Zhang. Kernel GMM and its application to image binarization. In *Proceedings of the 2003 IEEE International Conference on Multimedia and Expo, ICME 2003, 6-9 July 2003, Baltimore, MD, USA*, pages 533–536, 2003.

Tutorial and Seminars

Context Autoencoder for Scalable Self-Supervised Representation Pretraining	Keynote	SSLAD at ECCV 2022
Context Autoencoder for Scalable Self-Supervised Representation Pretraining	Keynote	NAS at CVPR 2022
Dense Prediction with Transformers: Semantic Segmentation and High-Resolution Backbone	Invited talk	Neural Architectures at ICCV 2021

Semantic Segmentation, Object Detection, and High-Resolution Backbone with Transformers	Keynote	VisDrone at ICCV 2021
High-resolution networks	Keynote	BigMM 2020
High-resolution networks	Keynote	CVWC at ICCV 2019
Neural architecture construction and search	tutorial	ICME 2019
High-resolution networks	Keynote	CEFRL at CVPR 2019
Interleaved group convolutions for efficient deep neural networks	Keynote	ACM ICIMCS 2018
Person re-identification: datasets and representations	Keynote	PCM 2018
Person re-identification: recent advances and challenges	Tutorial	FG 2018
CNN architecture design: from deeper to wider	Keynote	ACM ICIMCS 2017

Representative Product Transfer

Context auto-encoder (CAE v2)	Shipped to AI cloud, 2023
Group DETR	Shipped to Baidu AI cloud, 2023
Context auto-encoder (CAE v1)	Shipped to AI cloud, 2022
MaskOCR	Shipped to Baidu OCR products, 2022
HRNet	Shipped to Form Recognizer, 2021
SPTAG (spatial partition tree and graph, improved NGS)	Shipped to Bing platform, 2018
Fast human detection	Shipped to XiaoIce, 2017
How-Old Fashion	Shipped to XiaoIce, 2016
How-Old 2.0	Shipped to XiaoIce, 2015
Celebrity for chat	Shipped to XiaoIce, 2015, 2017
Similar image search for image chat	Shipped to XiaoIce, 2015
Similar video search for video chat	Shipped to XiaoIce, 2015
Similarity search	Shipped to Ads Selection, 2015
XiaoIce book recognition	Shipped to Weibo in XiaoIce, 2014
Nearest neighbor search	Shipped to Microsoft Bing image search in 2014.
Image match	Shipped to Microsoft Bing image search in 2014.
Visual attribute enhanced image relevance ranker	Shipped to Microsoft Bing image search in 2012.
Visual attribute enhanced image relevance ranker	Cognitive service. 2015
Dominant color filter	Shipped to Microsoft Bing image search, 2012
Image search by color map	Shipped to Microsoft Bing image search, 2010

Interns and Students ever Working With Me

(Many interns working with me at Baidu)

Huan Liu	Beijing Jiaotong University (23)
Jiaxiang Tang	Peking University (23)
Jiyang Qi	Huazhong University of Science and Technology (22)
Jie Zhu	Peking University (22)
Mingyu Ding	Hong Kong University (22)

Yan Liu	Zhejiang University (21)
Xiaosong Zhao	UCAS (21)
Yifan Zhang	South China of Technology (21)
Juhong Min	Pohang Univ. of Science and Technology (20-21)
Zejia Fan	Peking University (20-21)
Qi Han	Nankai University (20 - 21)
Zhuoyi Huang	Tongji University (20)
Xiaokang Chen	Peking University (20-21)
Changqian Yu	HUST (20)
Shaobo Min	USTC (20)
Baifeng Shi	Peking University
Chaoqun Wang	USTC (19)
Hung-Jen Chen	National Chiao Tung University (19)
Jingyi Xie	USTC (19)
Zigang Geng	USTC (19)
Boqi Chen	Boston University (19)
Tianheng Cheng	Huazhong University of Science & Technology (18)
Chaorui Deng	South China University of Technology
Manli Shu	USTC (18)
Borui Jiang	Peking University (18)
Jingchun Cheng	Tsinghua University (18)
Weijian Xu	UCSD (18)
Yifan Liu	Beihang University (18)
Yao Qin	UCSD (18)
Ke Sun	USTC (17 - 18)
Shichen Liu	Tsinghua University (17 - 18)
Depu Meng	USTC (17 - 18)
Mingji Li	USTC (17 - 18)
Junran Peng	IA, CAS (17)
Chong Shang	Tsinghua University (17)
Guotian Xie	Sun Yat-Sen University (17)
Peng Tang	Huazhong University of Science & Technology (16 - 17)
Song Bai	Huazhong University of Science & Technology (16 - 17)
Gangming Zhao	IA, CAS (17)
Kexin Zhang	Peking University (17)
Yumin Suh	Seoul National University, Korea (16 - 17)
Yajie Xing	Peking University (16 - 17)
Shuang Li	Tsinghua University (16)
Ryosuke Furuta	The University of Tokyo, Japan (16)
Yanzhao Wu	USTC (16)
Jun He	HeFei University of Technology (16)
Liheng Zhang	University of Central Florida (16)
Liming Zhao	Zhejiang University (16)
Zilong Huang	Huazhong University of Science & Technology (16)

Xun Huang	Beihang University (16)	
Xiaojuan Wang	Sun Yat-Sen University (15)	
Zhen Wei	Shanghai Jiao Tong University (15)	
Wei Tang	IA, CAS (15)	
Qiqi hou	Xi'an Jiaotong University (15)	
Ning Xu	UIUC (15)	
Liang Zheng	Tsinghua University (14 - 15)	
Jiaming Song	Tsinghua University (14)	
Tianxiao Shen	Tsinghua University (14)	
Jianqiu Ji	Tsinghua University (14)	
Fan Liu	Nanjing University of Science & Technology (14)	
Baoguang Shi	Huazhong University of Science & Technology (14)	
Dapeng Chen	Xi'an Jiaotong University (14)	
Falong Shen	Peking University (13 - 14)	
Lingxi Xie	Tsinghua University (13)	
Ting Zhang	USTC (13)	
Xianjie Chen	University of California, Los Angeles (13)	
Chongxuan Li	Tsinghua University (13)	
Chao Du	Tsinghua University (13 - 14)	
Jingkuan Song	The University of Queensland, Australia (12 - 13)	
Chuang Gan	Beihang University (12 - 13)	
Zhansheng Jiang	Shanghai Jiao Tong University (12 - 13)	
Yupeng Gu	USTC (12 - 13)	
Shiyu Chang	UIUC (12)	
Jianfeng Wang	USTC (12 - 13)	
Weiwen Tu	Sun Yat-Sen University (11)	
Tiansheng Yao	Zhejiang University (11)	
Dongqing Zhang	Shanghai Jiao Tong University (11)	
Peng Wang	Peking University (11 - 13)	
Xianghang Liu	University of New South Wales, Australia (11)	
Jiazhen Zhou	Peking University (11)	Columbia University
Junyang Lu	Peking University (11)	Columbia University
Xiang Ren	Zhejiang University (11)	UIUC
Nobuyuki Morioka	University of New South Wales, Australia (11)	Google
Naiyan Wang	Zhejiang University (10 - 11)	HKUST
Huaizu Jiang	Xi'an Jiaotong University (10 - 11)	
Shijie Xu	Beihang University (10)	
Jing Wang	Peking University (10 - 13)	
Bin Cheng	National University of Singapore (10)	
Biao Wang	Tsinghua University (10)	
Wenhao Lu	Tsinghua University (10)	
Zhe Zhao	Peking University (09 - 10)	University of Michigan
Xiangang Chen	Nanyang Technological University (09)	
Jue Xie	Monash University, Melbourne, Australia (09)	
Hao Xu	USTC (08 - 09)	
You Jia	Peking University (09)	CMU, Facebook
Liyan Jia	Tsinghua University (09)	Cornell University

Heng Zhang	Peking University (08 - 09)	
Yang Hu	USTC (08)	
Darui Li	USTC (08)	
Yinghai Zhao	USTC (08)	
Xuan Huang	USTC (07 - 08)	
Jianxiong Xiao	HKUST	
Fei Wang	Tsinghua University (05 - 06)	IBM T. J. Watson Research Lab
Yangqing Jia	Tsinghua University (07)	University of California, Berkeley
Dan Zhang	Tsinghua University (07, 10)	Purdue University
Mingjie Qian	Tsinghua University (09)	UIUC

Beijing, July 19, 2024