Jingdong Wang

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Education

Ph.D, Computer Science 2004.09-2007.08

Hong Kong University of Science and Technology

M.Eng, Automation 2001.09-2004.07

Tsinghua University

Excellent master degree thesis award

B.Eng, Automation 1997.09-2001.07

Tsinghua University

Research Interests

Computer vision and multimedia search

Deep learning, person re-identification, large scale indexing, large scale image search, salient object detection, human understanding, image segmentation, image recognition.

Machine learning and pattern recognition

Large scale machine learning, graph-based learning, probabilistic graphical modeling, kernel methods, spectral clustering.

Work Experience

Research Assistant

Tsinghua University Advisor: Changshui Zhang

Senior Researcher Microsoft Research Asia	2017.09-present
Lead Researcher Microsoft Research Asia	2013.09-2017.08
Researcher Microsoft Research Asia	2012.03-2013-08
Associate Researcher Microsoft Research Asia	2007.09-2012.02
Research and Teaching Assistants Hong Kong University of Science and Technology Advisor: Long Quan	2004.09-2007.08
Research Intern Microsoft Research Asia Mentor: Heung-Yeung Shum	2005.07-2005.12 2003.09-2004.05

2001.09-2004.07

Publications (Google citations: 7500+, h-index: 42)

The interns and supervisees are in bold.

CCF class A journal papers: 23; CCF class A conference papers: 54.

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] Jingdong Wang, and **Ting Zhang**. Composite quantization. *Journal of Machine Learning Research*., Major revision, 2017.
- [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 (6), IJCV (7), TOG (3), TIP (5), TMM (5), TOMM (2), TKDE (1)

- [1] Jingdong Wang, **Ting Zhang**, **Jingkuan Song**, Nicu Sebe, and Heng Tao Shen. A survey on learning to hash. *IEEE Trans. Pattern Anal. Mach. Intell.*, Accepted, 2017.
- [2] 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*, Accepted, 2017.
- [3] Na Qi, Yunhui Shi, Xiaoyan Sun, Jingdong Wang, Baocai Yin, and Junbin Gao. Multi-Dimensional Sparse Models. *IEEE Trans. Pattern Anal. Mach. Intell.*, Accepted, 2017.
- [4] 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*, Accepted, 2016.
- [5] 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, Accepted, 2016.
- [6] Lingxi Xie, JingdongWang, Weiyao Lin, Bo Zhang, and Qi Tian. Towards Reversal-Invariant Image Representation. International Journal of Computer Vision, Accepted, 2016.
- [7] **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.

- [8] 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.
- [9] 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.
- [10] 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.
- [11] 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.
- [12] 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.
- [13] 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.
- [14] Jinhui Tang, **Xiangbo Shu**, Zechao Li, Guo-Jun Qi, and Jingdong Wang. Generalized deep transfer networks for knowledge propagation in heterogeneous domains. *TOMCCAP*, 12(4s):68:1–68:22, 2016.
- [15] 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.
- [16] Lingxi Xie, Jingdong Wang, Bo Zhang, and Qi Tian. Fine-grained image search. IEEE Trans. Multimedia, 17(5):636-647, 2015.
- [17] 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.
- [18] 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.
- [19] Qinghua Huang, **Bisheng Chen**, Jingdong Wang, and Tao Mei. Personalized video recommendation through graph propagation. *TOMCCAP*, 10(4):32:1–32:17, 2014.
- [20] 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.
- [21] 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.
- [22] **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.
- [23] 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.
- [24] **Xinmei Tian**, Linjun Yang, Jingdong Wang, Xiuqing Wu, and Xian-Sheng Hua. Bayesian visual reranking. *IEEE Trans. Multimedia*, 13(4):639–652, 2011.

- [25] Jingdong Wang, Fei Wang, Changshui Zhang, Helen C. Shen, and Long Quan. Linear neighbor-hood propagation and its applications. *IEEE Trans. Pattern Anal. Mach. Intell.*, 31(9):1600–1615, 2009.
- [26] Tie Liu, Jingdong Wang, Jian Sun, Nanning Zheng, Xiaoou Tang, and Heung-Yeung Shum. Picture collage. *IEEE Trans. Multimedia*, 11(7):1225–1239, 2009.
- [27] 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.
- [28] Ping Tan, Gang Zeng, Jingdong Wang, Sing Bing Kang, and Long Quan. Image-based tree modeling. ACM Trans. Graph., 26(3):87, 2007.
- [29] 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] **Baoguang Shi**, Xiang Bai, Wenyu Liu, and Jingdong Wang. Face Alignment with Deep Regression. *IEEE Trans. Neural Netw. Learning Syst.*, Accepted, 2016.
- [2] Lingxi Xie, Jingdong Wang, Bo Zhang, and Qi Tian. Incorporating visual adjectives for image classification. *Neurocomputing*, 182:48–55, 2016.
- [3] 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.
- [4] 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.
- [5] **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.
- [6] 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.
- [7] 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.
- [8] **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.
- [9] 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.
- [10] 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.
- [11] 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.
- [12] Jingdong Wang, Yinghai Zhao, Xiuqing Wu, and Xian-Sheng Hua. A transductive multilabel learning approach for video concept detection. *Pattern Recognition*, 44(10-11):2274–2286, 2011.
- [13] Jingdong Wang and Xian-Sheng Hua. Interactive image search by color map. $ACM\ TIST$, $3(1):12:1-12:23,\ 2011.$

- [14] **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.
- [15] Fei Wang, Jingdong Wang, Changshui Zhang, and James T. Kwok. Face recognition using spectral features. Pattern Recognition, 40(10):2786–2797, 2007.
- [16] 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 (20), ICCV (14), ECCV (4), ACMMM (11), ICML (3), SIGIR (3), KDD (1), IJCAI (2)

- [1] **Ting Zhang**, Guo-Jun Qi, Bin Xiao, and Jingdong Wang. Interleaved Group Convolutions. In 2017 IEEE International Conference on Computer Vision, ICCV 2017.
- [2] Liming Zhao, Xi Li, Yueting Zhuang, and Jingdong Wang. Deeply-Learned Part-Aligned Representations for Person Re-Identification. In 2017 IEEE International Conference on Computer Vision, ICCV 2017.
- [3] **Ke Sun**, Cuiling Lan, Junliang Xing, Jingdong Wang, Wenjun Zeng, Dong Liu. Human Pose Estimation using Global and Local Normalization. In 2017 IEEE International Conference on Computer Vision, ICCV 2017.
- [4] Song Bai, Zhichao Zhou, Jingdong Wang, Xiang Bai, Longin Jan Latecki, Qi Tian. Ensemble Diffusion for Retrieval. In 2017 IEEE International Conference on Computer Vision, ICCV 2017.
- [5] 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 Conference on Multimedia Conference, MM 2017.
- [6] Guo-Jun Qi, Jiliang Tang, Jingdong Wang, and Jiebo Luo. Mixture Factorized Ornstein-Uhlenbeck Processes for Time-Series Forecasting. In KDD 2017.
- [7] Gangming Zhao, ingdong 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.
- [8] 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.
- [9] 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.
- [10] 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.
- [11] 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.
- [12] 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.
- [13] **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.
- [14] 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.
- [15] 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.
- [16] 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.
- [17] 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.
- [18] 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.
- [19] 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.
- [20] 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.
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- [22] 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.
- [23] 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.
- [24] 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.
- [25] 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.
- [26] 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.

- [27] 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.
- [28] 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.
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- [30] 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.
- [31] 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.
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- [33] 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.
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- [35] 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.
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- [40] 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.

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- [42] 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.
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- [44] 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 Com*puter Vision, ICCV 2011, Barcelona, Spain, November 6-13, 2011, pages 1631–1638, 2011.
- [45] Bin Cheng, Guangcan Liu, Jingdong Wang, Zhong Yang Huang, and Shuicheng Yan. Multitask 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.
- [46] 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.
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- [49] 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.
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- [51] 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.
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Refereed conferences

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Product Transfer

How-Old Fasion How-Old 2.0 Celebrity for chat Similar image search for image chat Similar video search for video chat

Similar video search for video chat Similarity search

XiaoIce book recognition Nearest neighbor search

Image match

Visual attribute enhanced image relevance ranker

Dominant color filter Image search by color map Shipped to XiaoIce, 2015
Shipped to Ads Selection, 2015
Shipped to Weibo in XiaoIce, 2014
Shipped to Microsoft Bing image search in 2014.
Shipped to Microsoft Bing image search in 2014.
Shipped to Microsoft Bing image search in 2012.

Shipped to XiaoIce, 2016

Cognitive service. 2015

Shipped to Microsoft Bing image search, 2012 Shipped to Microsoft Bing image search, 2010

Awards

Best paper award finalist	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

Professional Activities

Area/track chairs/senior programme committe

AAAI 2018, ICCV 2017, CVPR 2017, ECCV 2016, ACMMM 2015, ICIP 2017, ICME 2015, ICME 2012

Organizers

ICMR 2014, special session chair

Associate editors, editorial board members

IEEE Transactions on Multimedia (May, 2016 -)

Neurocomputing (April, 2015 - May, 2017)

Multimedia Tools and Applications (October, 2011 -)

Programme committee members or conference reviewers

CVPR (2009 - 2016), ICCV (2007/09/11/13/15), ECCV (2010/12/14), ACMMM (2009/12/13/14/17), NIPS (2014 - 2017) 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)

Journal reviewers

TPAMI, IJCV, JMLR, TIP, TKDE, TCSVT, TMM, PR, TOIS, TOSN, TOMM, TIST, CVIU, MVA, IVC

Interns and students ever working with me

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Yajie Xing Peking University (16) Shuang Li Tsinghua University (16)

Ryosuke Furuta The University of Tokyo, Japan (16)

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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)

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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)

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Zhansheng Jiang Shanghai Jiao Tong University (12-13)

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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)

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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)

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

University of California, Berkeley Purdue University UIUC

Beijing, September 21, 2017