



Guan'an Wang (王贯安)

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Interests:

Computer Vision, Pattern Recognition

Person Re-Identification, Hashing (Fast Image Retrieval), GAN

EDUCATIONS

◆ **2015.09 - present:** Ph.D. Candidate

Supervisor: Prof. Zeng-Guang Hou (IEEE Fellow), Prof. Jian Cheng

University: [Institute of Automation, Chinese Academy of Sciences \(CAISA\)](#), Beijing, China.

24 papers: 12/24 published, 8 published as 1st author (all CV top conf./journal, including CVPR, ICCV, ECCV*2, AAAI, IJCAI, TNNLS<JCR1>, NN<JCR2>)

Open Resources: 6 repos, 2 toolbox, Github followers 190+, stars 2k

◆ **2019.09 - present:** Visiting Ph.D. Student

Supervisor: Prof. Shaogang Gong (IET Fellow)

University: [Queen Mary University of London \(QMUL\)](#), London, UK.

◆ **2011.09 - 2015.06:** Bachelor Degree

University: School of Information Science and Engineer, [Central South University \(CSU\)](#), Hunan, China.

Ranking 1st/180+, 2014.10 enrolled to CASIA without entrance examination

PUBLICATIONS (12)

- ◆ [Guan'an Wang](#), Xiaoliang Xie, Qinghao Hu, Yang Yang, Jian Cheng, Zeng-Guang Hou. "Adversarial Binary Mutual Learning for Semi-Supervised Deep Hashing". *IEEE Transactions on Neural Networks and Learning Systems*, 2021. ([TNNLS](#), [JCR-1](#), [IF=8.793](#))
- ◆ [Guan'an Wang*](#), Yang Yang*, Tianzhu Zhang, Jian Cheng, Zengguang Hou, Prayag Tiwari, Hari Mohan Pandey. "Cross-Modality Paired-Images Generation and Augmentation for RGB-Infrared Person Re-Identification". *Neural Networks*, Volume 128, pp. 294-304, 2020. ([JCR-2](#), [IF=5.785](#))
- ◆ [Guan'an Wang](#), Shaogang Gong, Jian Cheng, Zengguang Hou. "Faster Person Re-Identification". *In Proceedings of the 16th European Conference on Computer Vision*, Glasgow, UK, pp. 275-292, August 2020. ([ECCV](#), [CCF-B](#), [Top3 Confs. on CV](#))
- ◆ [Guan'an Wang*](#), Shuo Yang*, Huanyu Liu, Zhicheng Wang, Yang Yang, Shuliang Wang, Gang Yu, Erjin Zhou, Jian Sun. "High-Order Information Matters: Learning Relation and Topology for Occluded Person Re-Identification". *In Proceedings of the 2020 Conference on Computer Vision and Pattern Recognition*, Seattle, WA, USA, pp. 6448-6457, June 2020. (*equal contribution, [CVPR](#), [CCF-A](#))
- ◆ [Guan'an Wang](#), Tianzhu Zhang, Yang Yang, Jian Cheng, Jianlong Chang, Xu Liang, Zengguang Hou. "Cross-Modality Paired-Images Generation for RGB-Infrared Person Re-Identification". *In Proceedings of the 34th AAAI Conference on Artificial Intelligence*, New York, USA, pp. 12144-151, 2020. ([AAAI](#), [CCF-A](#))

- ◆ **Guan'an Wang**, Tianzhu Zhang, Jian Cheng, Si Liu, Yang Yang, Zengguang Hou. "RGB-Infrared Cross-Modality Person Re-Identification via Joint Pixel and Feature Alignment". *In Proceedings of the 17th International Conference on Computer Vision*, Seoul, Korea (South), pp. 3622-31, 2019. ([ICCV](#), [CCF-A](#))
- ◆ **Guan'an Wang**, Yang Yang, Jian Cheng, Jinqiao Wang, Zengguang Hou. "Color-Sensitive Person Re-Identification". *In Proceedings of the 28th International Joint Conference on Artificial Intelligence*, Macao, China, pp. 933-939, 2019. ([IJCAI](#), [CCF-A](#))
- ◆ **Guan'an Wang**, Qinghao Hu, Jian Cheng, Zengguang Hou. "Semi-Supervised Generative Adversarial Hashing for Image Retrieval." *In Proceedings of the European Conference on Computer Vision*, Munich, Germany, pp. 491-507, 2018. ([ECCV](#), [CCF-B](#), [Top3 Confs. on CV](#))
- ◆ Zhen-Liang Ni, Gui-Bin Bian, **Guan'an Wang**, Xiaohu Zhou, Zeng-Guang Hou, Hua-Bin Chen, Xiao-Liang Xie. "Pyramid Attention Aggregation Network for Semantic Segmentation of Surgical Instruments". *In Proceedings of the 34th AAAI Conference on Artificial Intelligence*, New York City, USA, pp. 11782-790, 2020. ([AAAI](#), [CCF-A](#))
- ◆ Zhen-Liang Ni, Gui-Bin Bian, **Guan'an Wang**, Xiaohu Zhou, Zeng-Guang Hou, Xiao-Liang Xie, Zhen Li, Yu-Han Wang. "BARNet: Bilinear Attention Network with Adaptive Receptive Field for Surgical Instrument Segmentation". *In Proceedings of the 29th International Joint Conference on Artificial Intelligence*, Yokohama, Japan, pp. 832-838, 2021. ([IJCAI](#), [CCF-A](#))
- ◆ Gehan Hao, Yang Yang, Xue Zhou, **Guan'an Wang**, Zhen Lei. "Horizontal Flipping Assisted Disentangled Feature Learning for Semi-Supervised Person Re-Identification". *In Proceedings of the 15th Asian Conference on Computer Vision*, Japan, pp. 21-37, November 2020. ([ACCV](#), [CCF-C](#))
- ◆ Chen-Chen Fan, Haiqun Xie, Hongjun Yang, ZhenLiang Ni, Zeng-Guang Hou, **Guan'an Wang**, Sheng Chen, Zhijie Fang, Shuyun Huang. "Group Feature Learning and Domain Adversarial Neural Network for aMCI Diagnosis System Based on EEG". *In Proceedings of the 2021 IEEE International Conference on Robotics and Automation*, Xi'an, China, May 2021. ([ICRA](#), [CCF-B](#), [Top3 Confs. on Robotic](#))

UNDERREVIEWS (12)

- ◆ "Graph Zero-Shot Hashing". (1st author)
- ◆ "Meta Person Re-Identification: Efficient Reduction, Flexible Distillation and Interpretability". (1st author)
- ◆ "Pixel and Feature transfer Fusion for Unsupervised Cross-Dataset Person Re-Identification". (1st author)
- ◆ "Morphological Analysis of Aneurysm with Boundary-Aware Features".
- ◆ "Learning Visibility Graph and Features Recovery Transformer for Occluded Person Re-identification".
- ◆ "Real-Time Morphological and Positional Analysis of Wire-Like Structures in DSA".
- ◆ "TR-GAN: Past-to-Future Prediction for MRI using Temporal Recurrent Generative Adversarial Network".
- ◆ "Adaptive Graph Reasoning and Semantic Guidance for Surgical Scene Understanding".
- ◆ "Efficient Human Pose Estimation by Learning Deeply Aggregated Representations".
- ◆ "GF-DANN: Group Feature Learning and Domain Adaption with Adversarial Neural Network for aMCI Diagnosis Based on EEG".
- ◆ "NLBNet: Adaptive Cross-Strip Non-Local Network with Low-Rank Bilinear Feature Fusion for Surgical Scene Understanding".
- ◆ "Learning Pyramid Attention and Deformation Features for Surgical Instrument Segmentation".

CHALLENGES & HONORS

- ◆ **1st(1/1500) of National Challenge of Artificial Intelligence (Re-ID Track)**, 2020
- ◆ **Scholarship of State Scholarship Fund** to the UK awarded by China Scholarship Council, 2019
- ◆ **Outstanding Graduate** of Hunan Province, China 2015
- ◆ **Outstanding Graduate** of Center South University, 2015
- ◆ **Meritorious Winner** (<10%) in American College Student Mathematical Modeling Contest, 2014
- ◆ **First Prize** in Intelligent Vehicle Contest of Hunan Province, 2014
- ◆ **National Scholarship** (<5%), 2012, 2014
- ◆ **School Principal Scholarship** (< 1%) in Center South University, 2012, 2013, 2014

ACTIVITIES

- ◆ **Conference Reviewers**
 - CVPR2021, IJCAI2021, AAI2021, ICCV2021, IJCAI2020, CVPR2020, AAAI2020, BMVC2020, ICCV2019, CVPR2019, AAAI2019
- ◆ **Journal Reviewers**
 - International Journal of Computer Vision (IJCV)
 - IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
 - IEEE Transactions on Multimedia (TMM)
- ◆ **Invited Lecturer** of the GAN Theory and Practice in online deep learning course

SKILLS

- ◆ Programming: Python, Matlab, C, PyTorch, TensorFlow, Latex
- ◆ Research Tools: Pycharm, Viso, Word, PowerPoint