



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.

23 papers: 11/23 published, 8 published as 1st author (all CV top conf./journal, including CVPR, ICCV, ECCV*2, AAAI, IJCAI, TNNLS<JCR1>, NN)

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 (11)

- ◆ **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 (**TNNLS, JCR-1, IF=8.793**), 2021.
- ◆ **Guan'an Wang**, Shaogang Gong, Jian Cheng, Zengguang Hou. "Faster Person Re-Identification". In Proceedings of the European Conference on Computer Vision (**ECCV**), 2020.
- ◆ **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 Conference on Computer Vision and Pattern Recognition (**CVPR, CCF-A**), 2020. (*equal contribution)
- ◆ **Guan'an Wang***, Yang Yang*, Tianzhu Zhang, Jian Cheng, Zengguang Hou, Prayag Tiwari, Hari Mohan Mohan Pandey. "Cross-Modality Paired-Images Generation and Augmentation for RGB-Infrared Person Re-Identification". Neural Networks (**NN, JCR-2, IF=5.785**), 2020.
- ◆ **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 Thirty-Fourth AAAI Conference on Artificial Intelligence (**AAAI, CCF-A**), 2020.
- ◆ **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 International Conference on Computer Vision (**ICCV, CCF-A**), 2019.

- ◆ **Guan'an Wang**, Yang Yang, Jian Cheng, Jinqiao Wang, Zengguang Hou. “Color-Sensitive Person Re-Identification”. In Proceedings of International Joint Conference on Artificial Intelligence (**IJCAI, CCF-A**), 2019.
- ◆ **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 (**ECCV**), 2018.
- ◆ 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 Thirty-Fourth AAAI Conference on Artificial Intelligence (**AAAI, CCF-A**), 2020.
- ◆ 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 International Joint Conference on Artificial Intelligence (**IJCAI, CCF-A**), 2020.
- ◆ Gehan Hao, Yang Yang, Xue Zhou, **Guan'an Wang**, Zhen Lei. “Horizontal Flipping Assisted Disentangled Feature Learning for Semi-Supervised Person Re-Identification”. Asian Conference on Computer Vision (**ACCV**), 2020.

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