

## Refereed Publications (313)

### REFEREED JOURNAL ARTICLES (130)

- 1 2020 Y. Dai, H. Lu, C. Shen (2020), “Towards light-weight portrait matting via parameter sharing”, *Computer Graphics Forum*.
- 2 H. Xiong, Z. Cao, H. Lu, S. Madec, L. Liu, C. Shen (2020), “TasselNetv2: in-field counting of wheat spikes with context-augmented local regression networks”, *Plant Methods*.
- 3 Y. Zhao, Y. Liu, C. Shen, Y. Gao, S. Xiong (2020), “MobileFAN: transferring deep hidden representation for face alignment”, *Pattern Recognition*.
- 4 X. Zhang, R. Zhang, J. Cao, D. Gong, M. You, C. Shen (2020), “Part-guided attention learning for vehicle instance retrieval”, *IEEE Trans. Intelligent Transportation Systems*.
- 5 G. Dong, Y. Yan, C. Shen, H. Wang (2020), “Real-time high-performance semantic image segmentation of urban street scenes”, *IEEE Trans. Intelligent Transportation Systems*.
- 6 L. Zhang, P. Wang, H. Li, Z. Li, C. Shen, Y. Zhang (2020), “A robust attentional framework for license plate recognition in the wild”, *IEEE Trans. Intelligent Transportation Systems*.
- 7 L. Liu, Z. Cao, H. Lu, H. Xiong, C. Shen (2020), “NSSNet: scale-aware object counting with non-scale suppression”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 8 L. Zhang, P. Wang, L. Liu, C. Shen, W. Wei, Y. Zhang, A. van den Hengel (2020), “Towards effective deep embedding for zero-shot learning”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 9 Y. Xie, J. Zhang, H. Lu, C. Shen, Y. Xia (2020), “SESV: accurate medical image segmentation by predicting and correcting errors”, *IEEE Trans. Medical Imaging*.
- 10 Y. Xie, J. Zhang, Y. Xia, C. Shen (2020), “A mutual bootstrapping model for automated skin lesion segmentation and classification”, *IEEE Trans. Medical Imaging*.
- 11 S. Zhang, Y. Liu, L. Jin, Z. Wei, C. Shen (2020), “OPMP: an omni-directional pyramid mask proposal network for arbitrary-shape scene text detection”, *IEEE Trans. Multimedia*.
- 12 Y. Yan, Y. Huang, S. Chen, C. Shen, H. Wang (2020), “Joint deep learning of facial expression synthesis and recognition”, *IEEE Trans. Multimedia*.
- 13 X. Peng, H. Zhu, J. Feng, C. Shen, H. Zhang, J. Zhou (2020), “Deep clustering with sample-assignment invariance prior”, *IEEE Trans. Neural Networks and Learning Systems*.
- 14 D. Gong, Z. Zhang, Q. Shi, A. van den Hengel, C. Shen, Y. Zhang (2020), “Learning deep gradient descent optimization for image deconvolution”, *IEEE Trans. Neural Networks and Learning Systems*.
- 15 L. Zhang, W. Wei, Q. Shi, C. Shen, A. van den Hengel, Y. Zhang (2020), “Accurate tensor completion via adaptive low-rank representation”, *IEEE Trans. Neural Networks and Learning Systems*.
- 16 W. Liu, P. Zhang, X. Huang, J. Yang, C. Shen, I. Reid (2020), “Real-time image smoothing via iterative least squares”, *ACM Trans. Graphics*.
- 17 J. Cao, Y. Guo, Q. Wu, C. Shen, J. Huang, M. Tan (2020), “Improving generative adversarial networks with local coordinate coding”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 18 H. Lu, Y. Dai, C. Shen, S. Xu (2020), “Index networks”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 19 Y. Liu, C. Shen, J. Wang, C. Shen (2020), “Structured knowledge distillation for dense prediction”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 20 Y. Zhou, R. Ji, J. Su, X. Sun, D. Meng, Y. Gao, C. Shen (2020), “Plenty is plague: fine-grained learning for visual question answering”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 21 L. Zhang, Z. Shi, J. Zhou, M. Cheng, Y. Liu, J. Bian, Z. Zeng, C. Shen (2020), “Ordered or orderless: a revisit for video based person re-identification”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 22 Y. Chen, C. Shen, H. Chen, X. Wei, L. Liu, J. Yang (2020), “Adversarial learning of structure-aware fully convolutional networks for landmark localization”, *IEEE Trans. Pattern Analysis and Machine Intelligence* 42: 1654–1669.
- 23 2019 L. Zhang, P. Wang, C. Shen, L. Liu, W. Wei, Y. Zhang, A. van den Hengel (2019), “Adaptive importance learning for improving lightweight image super-resolution network”, *Int’l J. Computer Vision*.
- 24 L. Zhang, W. Wei, Q. Shen, C. Shen, A. van den Hengel (2019), “Accurate imagery recovery using a multi-observation patch model”, *Information Sciences*.
- 25 J. Zhang, Q. Wu, J. Zhang, C. Shen, J. Lu, Q. Wu (2019), “Heritage image annotation via collective knowledge”, *Pattern Recognition*.
- 26 P. Wang, L. Liu, C. Shen, H. Shen (2019), “Order-aware convolutional pooling for video based action recognition”, *Pattern Recognition*.

- 27 Z. Wu, C. Shen, A. van den Hengel (2019), “Wider or deeper: revisiting the ResNet model for visual recognition”, *Pattern Recognition*.
- 28 Y. Zhao, C. Shen, H. Wang, S. Chen (2019), “Structural analysis of attributes for vehicle re-identification and retrieval”, *IEEE Trans. Intelligent Transportation Systems*.
- 29 X. Wang, C. Shen, H. Li, S. Xu (2019), “Human detection aided by deeply learned semantic masks”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 30 L. Liu, H. Lu, H. Xiong, K. Xian, Z. Cao, C. Shen (2019), “Counting objects by blockwise classification”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 31 W. Liu, P. Zhang, X. Chen, C. Shen, X. Huang, J. Yang (2019), “Embedding bilateral filter in least squares for efficient edge-preserving image smoothing”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 32 H. Zhang, Y. Li, Y. Jiang, P. Wang, Q. Shen, C. Shen (2019), “Hyperspectral classification based on lightweight 3D-CNN with transfer learning”, *IEEE Trans. Geoscience and Remote Sensing*.
- 33 X. Wei, P. Wang, L. Liu, C. Shen, J. Wu (2019), “Piecewise classifier mappings: learning fine-grained learners for novel categories with few examples”, *IEEE Trans. Image Processing*.
- 34 P. Zhang, W. Liu, H. Lu, C. Shen (2019), “Salient object detection with lossless feature reflection and weighted structural loss”, *IEEE Trans. Image Processing*.
- 35 X. Wei, H. Ye, X. Mu, J. Wu, C. Shen, Z. Zhou (2019), “Multiple instance learning with emerging novel class”, *IEEE Trans. Knowledge and Data Engineering*.
- 36 J. Zhang, Y. Xie, Y. Xia, C. Shen (2019), “Attention residual learning for skin lesion classification”, *IEEE Trans. Medical Imaging*.
- 37 T. Zhang, G. Lin, J. Cai, T. Shen, C. Shen, A. Kot (2019), “Decoupled spatial neural attention for weakly supervised semantic segmentation”, *IEEE Trans. Multimedia*.
- 38 G. Lin, F. Liu, A. Milan, C. Shen, I. Reid (2019), “RefineNet: multi-path refinement networks for dense prediction”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 39 2018 L. Zhang, W. Wei, Y. Zhang, C. Shen, A. van den Hengel, Q. Shi (2018), “Cluster sparsity field: an internal hyperspectral imagery prior for reconstruction”, *Int’l J. Computer Vision*.
- 40 H. Li, P. Wang, M. You, C. Shen (2018), “Reading car license plates using deep neural networks”, *Image and Vision Computing*.
- 41 X. Wei, C. Zhang, J. Wu, C. Shen, Z. Zhou (2018), “Unsupervised object discovery and co-localization by deep descriptor transforming”, *Pattern Recognition*.
- 42 N. Zhuang, Y. Yan, S. Chen, H. Wang, C. Shen (2018), “Multi-label learning based deep transfer neural network for facial attribute classification”, *Pattern Recognition*.
- 43 H. Li, P. Wang, C. Shen (2018), “Towards end-to-end car license plates detection and recognition with deep neural networks”, *IEEE Trans. Intelligent Transportation Systems*.
- 44 M. You, Y. Zhang, C. Shen, X. Zhang (2018), “An extended filtered channel framework for pedestrian detection”, *IEEE Trans. Intelligent Transportation Systems* 19: 1640–1651.
- 45 R. Yao, G. Lin, C. Shen, Y. Zhang, Q. Shi (2018), “Semantics-aware visual object tracking”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 46 L. Zhang, P. Wang, W. Wei, H. Lu, C. Shen, A. van den Hengel, Y. Zhang (2018), “Unsupervised domain adaptation using robust class-wise matching”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 47 Q. Hu, P. Wang, C. Shen, A. van den Hengel, F. Porikli (2018), “Pushing the limits of deep CNNs for pedestrian detection”, *IEEE Trans. Circuits and Systems for Video Technology* 28.
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- 50 G. Guo, H. Wang, C. Shen, Y. Yan, H. Liao (2018), “Automatic image cropping for visual aesthetic enhancement using deep neural networks and cascaded regression”, *IEEE Trans. Multimedia*.
- 51 H. Liu, R. Ji, J. Wang, C. Shen (2018), “Ordinal constraint binary coding for approximate nearest neighbor search”, *IEEE Trans. Pattern Analysis and Machine Intelligence*.
- 52 P. Wang, Q. Wu, C. Shen, A. Dick, A. van den Hengel (2018), “FVQA: fact-based visual question answering”, *IEEE Trans. Pattern Analysis and Machine Intelligence* 40: 2413–2427.
- 53 2017 G. Lin, F. Liu, C. Shen, J. Wu, H. Shen (2017), “Structured learning of binary codes with column generation for optimizing ranking measures”, *Int’l J. Computer Vision*.
- 54 Y. Li, W. Li, C. Shen (2017), “Removal of optically thick clouds from high-resolution satellite imagery using dictionary group learning and interdictionary nonlocal joint sparse coding”, *IEEE J. Selected Topics in*

- 55 H. Lu, Z. Cao, Y. Xiao, B. Zhuang, C. Shen (2017), “TasselNet: counting maize tassels in the wild via local counts regression network”, *Plant Methods*.
- 56 X. Wei, C. Xie, J. Wu, C. Shen (2017), “Mask-CNN: localizing parts and selecting descriptors for bird species categorization”, *Pattern Recognition*.
- 57 R. Qiao, L. Liu, C. Shen, A. van den Hengel (2017), “Learning discriminative trajectorylet detector sets for accurate skeleton-based action recognition”, *Pattern Recognition*.
- 58 L. Wu, C. Shen, A. van den Hengel (2017), “Deep linear discriminant analysis on Fisher networks: a hybrid architecture for person re-identification”, *Pattern Recognition*.
- 59 Q. Hu, H. Wang, T. Li, C. Shen (2017), “Deep CNNs with spatially weighted pooling for fine-grained car recognition”, *IEEE Trans. Intelligent Transportation Systems*.
- 60 Y. Cao, Z. Wu, C. Shen (2017), “Estimating depth from monocular images as classification using deep fully convolutional residual networks”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 61 B. Sheng, C. Shen, G. Lin, J. Li, W. Yang, C. Sun (2017), “Crowd counting via weighted VLAD on dense attribute feature maps”, *IEEE Trans. Circuits and Systems for Video Technology*.
- 62 F. Liu, G. Lin, C. Shen (2017), “Discriminative training of deep fully-connected continuous CRF with task-specific loss”, *IEEE Trans. Image Processing*.
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- 76 F. Shen, C. Shen, X. Zhou, Y. Yang, H. Shen (2016), “Face image classification by pooling raw features”, *Pattern Recognition* 54: 94–103.
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#### REFEREED TOP CONFERENCE ARTICLES IN COMPUTER VISION AND MACHINE LEARNING (118)

- *Proc. Annual Conf. Neural Information Processing Systems (NeurIPS)*
- *Proc. Int. Conf. Machine Learning (ICML)*
- *Proc. IEEE Conf. Computer Vision & Pattern Recognition (CVPR)*
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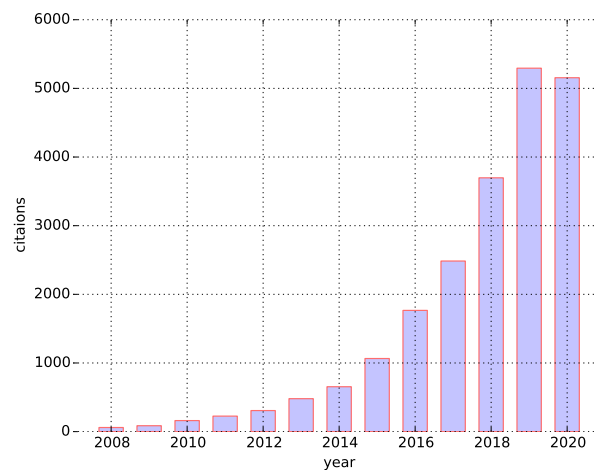


Figure 1: Google scholar citation as of 11-10-2020