Yang Zhao

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Education

The University of Adelaide
Ph.D., Artificial Intelligence — *Mar. 2018 – Present*

Griffith University
Ph.D., Artificial Intelligence — *Feb. 2018 – Present*

Wuhan University of Technology
M.S., Computer Science — *2014 – 2017*

Wuhan University of Technology
B.S., Computer Science — *2009 – 2013*

Publications

Published Journal / Conference Papers:

- **Zhao, Y.**, Shen, C., Yu, X., Chen, H., Gao, Y., & Xiong. S. (2021). Learning Deep Part-Aware Embedding for Person Retrieval. *Pattern Recognition (**PR**), 116, 107938.*
- **Zhao, Y.**, Liu, Y., Shen, C., Gao, Y., & Xiong, S. (2020). MobileFAN: transferring deep hidden representation for face alignment. *Pattern Recognition (**PR**), 100, 107114.*
- Yu, X., **Zhao, Y.**, Gao, Y., & Xiong. S. (2021). MaskCOV: A Random Mask Covariance Network for Ultra-Fine-Grained Visual Categorization. *Pattern Recognition (**PR**), 108067.*
- Wang, J., Sun, K., Cheng, T., Jiang, B., Deng, C., **Zhao, Y.**, ... & Xiao, B. (2020). Deep high-resolution representation learning for visual recognition. *IEEE transactions on pattern analysis and machine intelligence (**TPAMI**).*
- Yu, X., **Zhao, Y.**, Gao, Y., Xiong, S., & Yuan, X. (2020). Patchy Image Structure Classification Using Multi-Orientation Region Transform. *In Proceedings of the AAAI Conference on Artificial Intelligence (**AAAI**),* Vol. 34, No. 07, pp. 12741-12748.

Under Review Papers:

- **Zhao, Y.**, Wang, X. , Yu, X., Shen, C., Gao, Y., Gait-Assisted Video Person Retrieval. *In Proceedings of ACM international conference on Multimedia (**MM2021**).*
- **Zhao, Y.**, Yu, X., Gao, Y., Shen, C., Learning Discriminative Region Representation for Person Retrieval. *Pattern Recognition (**PR**).*
- Yu, X., **Zhao, Y.**, Gao, Y., Yuan, X., Xiong, S., Benchmark Platform for Visual Classification Beyond Human Performance. *In Proceedings of the IEEE International Conference on Computer Vision (**ICCV2021**).*

Main Projects

Facial Landmark Detection 2018 – 2019

- Introduced a lightweight and effective knowledge distillation method for face alignment. Accepted in ***PR***.
- Applied HRNetV2 in face alignment that surpasses state-of-the-art models. Accepted in ***TPAMI***.

Person Retrieval 2019 – 2021

- Introduced an improved triplet loss that encourages positive pairs as close as possible and penalizes negative pairs proportional to their distances for effective person retrieval. Accepted in ***PR***.
- Introduced a novel identity-guided human region segmentation method that can predict informative region segments, enabling discriminative region representation learning for person retrieval. Submitted to ***PR***.
- Built a two-stream appearance-gait network to jointly learn the appearance features and gait features from RGB video clips and silhouette video clips for improved video person retrieval. Submitted to ***MM2021***.

Fine-Grained Visual Categorization 2019 – 2021

- Developed a data augmentation method to mitigate overfitting and thus enhance generalization capability for FGVC. Accepted in ***PR***.
- Developed the largest ultra-FGVC dataset (over 47,000 images) and evaluated extensive state-of-the-art methods as baselines to motivate further research on ultra-FGVC. Submitted to ***ICCV2021***.

Professional Activity

Served as a reviewer for IEEE Transactions on Multimedia, ICCV 2021, CVPR 2021, IJCAI 2021, ICONIP 2020.