

Kai Wang

PH.D STUDENT · COMPUTER SCIENCE

Institutes of Data Science & School of Computing, National University of Singapore

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Education

School of Computing, National University of Singapore

PH.D STUDENT, AI SINGAPORE PH.D FELLOWSHIP

- Advisor: Presidential Young Prof. Yang You

Singapore

08.2021 -

University of Chinese Academy of Sciences

MASTER OF ENGINEERING

- Outstanding Graduates
- Advisor: Prof. Yu Qiao and Assoc. Prof. Xiaojiang Peng

Beijing, China

09.2017 - 06.2020

Beijing Normal University Zhuhai Campus

BACHELOR OF ENGINEERING

- China National Scholarship (Top 0.2%)
- Outstanding Graduates

Zhuhai, China

09.2013 - 06.2017

Publications

PUBLISHED (6 CVPR, 2 ECCV, 1 AAAI, AND 1 TIP)

- [20]. Zelin Zang, Siyuan Li, Di Wu, Ge Wang, **Kai Wang**, Lei Shang, Baigui Sun, Hao Li, and Stan Li. 2022. **DLME: Deep Local-flatness Manifold Embedding**. European Conference on Computer Vision (ECCV).
- [19]. **Kai Wang**, Bo Zhao, Xiangyu Peng, Zheng Zhu, Shuo Yang, Shuo Wang, Guan Huang, Hakan Bilen, Xinchao Wang, and Yang You. 2022. **CAFE: Learning to Condense Dataset by Aligning Features**. IEEE/CVF Conference on Computer Vision and Pattern Recognition.
- [18]. **Kai Wang**, Shuo Wang, Panpan Zhang, Zhipeng Zhou, Zheng Zhu, Xiaobo Wang, Xiaojiang Peng, Baigui Sun, Hao Li, and Yang You. 2022. **An Efficient Training Approach for Very Large Scale Face Recognition**. IEEE/CVF Conference on Computer Vision and Pattern Recognition.
- [17]. Xiangyu Peng*, **Kai Wang***, Zheng Zhu, Mang Wang, and Yang You. 2022. **Crafting Better Contrastive Views for Siamese Representation Learning**. IEEE/CVF Conference on Computer Vision and Pattern Recognition. Equal Contribution.
- [16]. Wangbo Zhao, **Kai Wang**, Xiangxiang Chu, Fuzhao Xue, Xinchao Wang, and Yang You. 2022. **Modeling Motion with Multi-Modal Features for Text-Based Video Segmentation**. IEEE/CVF Conference on Computer Vision and Pattern Recognition.
- [15]. Shiming Chen, Ziming Hong, Guosen Xie, Wenhan Yang, Qinmu Peng, Kai Wang, Jian Zhao, Xinge You. 2022. **MSDN: Mutually Semantic Distillation Network for Zero-Shot Learning**. IEEE/CVF Conference on Computer Vision and Pattern Recognition.
- [14]. Jianfei Yang, Zhaoyang Zeng, Kai Wang, Han Zou, Lihua Xie. 2021. **GarbageNet: a unified learning framework for robust garbage classification**. IEEE Transactions on Artificial Intelligence.
- [13]. Chunmei Feng, **Kai Wang**, Shijian Lu, Yong Xu, Xuelong Li. 2021. **Brain MRI Super-Resolution using Coupled-Projection Residual Network**. Neurocomputing.
- [12]. **Kai Wang**, Xiaojiang Peng, Jianfei Yang, Shijian Lu, Yu Qiao. 2020. **Suppressing Uncertainties for Large-Scale Facial Expression Recognition**. IEEE/CVF Conference on Computer Vision and Pattern Recognition, 6897-6906.
- [11]. **Kai Wang**, Xiaojiang Peng, Jianfei Yang, Debin Meng, Yu Qiao. 2020. **Region Attention Networks for Pose and Occlusion Robust Facial Expression Recognition**. IEEE Transactions on Image Processing, 4057-4069.
- [10]. Xiaojiang Peng*, **Kai Wang***, Zhaoyang Zeng*, Qing Li, Jianfei Yang, Yu Qiao. 2020. **Suppressing Misabeled Data via Grouping and Self-Attention**. European Conference on Computer Vision, 786-802. Equal Contribution

- [9]. **Kai Wang**, Xiaoxing Zeng, Jianfei Yang, Debin Meng, Kaipeng Zhang, Xiaojiang Peng, Yu Qiao. 2018. **Cascade Attention Networks for Group Emotion Recognition with Face, Body and Image Cues**. 20th ACM International Conference on Multimodal Interaction, 640-645.
- [8]. **Kai Wang**, Jianfei Yang, Da Guo, Kaipeng Zhang, Xiaojiang Peng, Yu Qiao. 2019. **Bootstrap model ensemble and rank loss for engagement intensity regression**. 21th ACM International Conference on Multimodal, 551-556.
- [7]. Da Guo*, **Kai Wang***, Jianfei Yang, Kaipeng Zhang, Xiaojiang Peng, Yu Qiao. 2019. **Exploring Regularizations with Face, Body and Image Cues for Group Cohesion Prediction**. 21th ACM International Conference on Multimodal, 557-561. Equal Contribution
- [6]. Sijie Ji*, **Kai Wang***, Xiaojiang Peng, Jianfei Yang, Zhaoyang Zeng, Yu Qiao. 2020. **Multiple Transfer Learning and Multi-Label Balanced Training Strategies for Facial AU Detection in the Wild**. IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops, 414-418. Equal Contribution
- [5]. Junhao Liu, **Kai Wang**, Chunpu Xu, Zhou Zhao, Ruifeng Xu, Ying Shen, Min Yang. 2020 **Interactive Dual Generative Adversarial Networks for Image Captioning**. AAAI, 11588-11595.
- [4]. Xingyu Fan, Zhongying Deng, **Kai Wang**, Xiaojiang Peng, Yu Qiao. 2020. **Learning Discriminative Representation For Facial Expression Recognition From Uncertainties**. IEEE International Conference on Image Processing (ICIP), 903-907.
- [3]. Debin Meng, Xiaojiang Peng, **Kai Wang**, Yu Qiao. 2019. **Frame attention networks for facial expression recognition in videos**. IEEE International Conference on Image Processing (ICIP), 3866-3870.
- [2]. Jianfei Yang, **Kai Wang**, Xiaojiang Peng, Yu Qiao. 2018. **Deep recurrent multi-instance learning with spatio-temporal features for engagement intensity prediction**. 20th ACM International Conference on Multimodal Interaction, 594-598.
- [1]. Lianzhi Tan, Kaipeng Zhang, **Kai Wang**, Xiaoxing Zeng, Xiaojiang Peng, Yu Qiao. 2017. **Group emotion recognition with individual facial emotion CNNs and global image based CNNs**. 19th ACM International Conference on Multimodal Interaction, 549-552.

Intern

6 months **Huawei Cloud**, Huawei Technology Company

12 months **Alibaba DAMO Acadmey**, Alibaba Group

Research Intern

Research Intern

Awards

2021	ICCV Masked Face Recognition Challenge , ICCV Committee	<i>Champion</i>
2020	CVPR2020-AU Detection Challenge , CVPR Committee	<i>Top3</i>
2019	2019 National AI Challenge, Person-Reid, Top6 (6/2518) , Shenzhen Gov.	<i>\$ 30,000</i>
2019	2019 Garbage Classification Challenge, Top1 (1/2611) , Huawei Company	<i>\$ 30,000</i>
2019	2019 Emotiw V-A Emotion Recognition , ICMI	<i>Rank 3th</i>
2019	2019 Emotiw Group Cohesion Recognition , ICMI	<i>Rank 2nd</i>
2018	Pacific Earthquake Engineering Research ImageNet , PEER	<i>Champion</i>
2018	2018 Emotiw Engagement Recognition , ICMI	<i>Champion</i>
2018	2018 Emotiw Group Emotion Recognition , ICMI	<i>Rank 2nd</i>
2017	2017 Emotiw Group Emotion Recognition , ICMI	<i>Champion</i>
2016	National Entrepreneurship Competition , Zhuhai, Zhuhai Gov.	<i>Top20</i>