ZHU Feng (朱烽)

Deputy R&D Director, SenseTime Group LTD

+86-15956918092
zhufengx2011@gmail.com
http://home.ustc.edu.cn/~zhufengx/

Research Interests

Computer Vision, Deep Learning
Video Surveillance, Face Recognition

Working Experience

2019.04- **Deputy R&D Director,** *SenseTime Group LTD, Shenzhen, Guangdong, China.*
Leads a research team working on large scale face recognition and scene analysis.

2018.04-2019.04 **Senior Researcher,** *SenseTime Group LTD, Shenzhen, Guangdong, China.*

2017.07-2018.03 **Senior Computer Vision R&D Engineer,** *SenseNets Technology LTD, Shenzhen, Guangdong, China.*

Education

2011.09-2017.06 **Ph.D. Candidate,** *Department of Electronic Engineering and Information Science, University of Science and Technology of China (USTC)*, Hefei, Anhui, China.

- Thesis: Surveillance Video Structuring and Retrieval in Camera Networks
- Supervisor: Prof. Nenghai Yu

2016.07-2017.03
2012.11-2015.01 **Research Assistant,** *Department of Electronic Engineering, The Chinese University of Hong Kong (CUHK)*, Hongkong, China.

- Supervisor: Prof. Xiaogang Wang

2007.09-2011.07 **B.S. Degree,** *Department of Electronic Engineering and Information Science, University of Science and Technology of China (USTC)*, Hefei, Anhui, China.

- Thesis: Adaptive Error Resilient Coding Based on FMO in Wireless Video Transmission
- Supervisor: Prof. Nenghai Yu

Publications

[1] Qi Chu, Wanli Ouyang, Bin Liu, **Feng Zhu**, Nenghai Yu. “DASOT: A Unified Framework Integrating Data Association and Single Object Tracking for Online Multi-Object Tracking”, **AAAI** 2020.

[2] Jing Xu, Rui Zhao, **Feng Zhu**, Huaming Wang, Wanli Ouyang. “Attention-aware Compositional Network for Person Re-identification”, *IEEE International Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2018.

[3] **Feng Zhu**, Hongsheng Li, Wanli Ouyang, Nenghai Yu, and Xiaogang Wang, “Learning Spatial Regularization with Image-level Supervisions for Multi-label Image Classification”, *IEEE International Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2017.

[4] **Feng Zhu**, Xiaogang Wang, and Nenghai Yu, “Crowd Tracking by Group Structure

Evolution", *IEEE Transactions on Circuits and Systems for Video Technology* (**TCSVT**), 2016.

[5] **Feng Zhu**, Qi Chu, and Nenghai Yu, "Consistent Matching based on Boosted Salience Channels for Group Re-identification", *IEEE International Conference on Image Processing* (**ICIP**), 2016.

[6] Jingjing Wang, Nenghai Yu, **Feng Zhu**, Liansheng Zhuang, "*Multi-level visual tracking with hierarchical tree structural constraint*", **Neurocomputing**, 2016.

[7] **Feng Zhu**, Xiaogang Wang and Nenghai Yu, "Crowd Tracking with Dynamic Evolution of Group Structures", European Conference on Computer Vision (**ECCV**), 2014.

[8] **Feng Zhu,** Weiming Zhang, Nenghai Yu, Xianfeng Zhao, "Robust FMO Algorithm and Adaptive Redundant Slice Allocation for Wireless Video Transmission", ***Telecommunication Systems***, vol. 59, no. 3, pp. 357-363, 2015.

[9] **Feng Zhu**, Weiming Zhang, Nenghai Yu, Jiajia Xu, Gang Wu, "Adaptive Error Resilient Coding Based on FMO in Wireless Video Transmission", *IEEE International Conference on Multimedia Information Networking and Security* (**MINES**), 2011.

Projects

2018.04- ***Large Scale Unconstrained Face Recognition***

- Improving large scale unconstrained face recognition from network structure, loss design, representation, training framework and other possible aspects.
- Improving commercial face recognition models against occlusion, blur, large pose, and other possible hardcases.
- Developing adversarial attack/defense, continual learning algorithms for future challenges of face recognition applications.

2019.04- ***Research on Intelligent Camera Networks***

- Including camera anomaly detection, camera localization, camera cooperation…

2018.04- ***Advanced Computer Vision Algorithms for Smart City***

- Including crowd density estimation, moving object segmentation, social relation…

2017.07-2018.03 ***Developing Face Recognition Models***

- Improved face recognition by generating face images through GAN models.
- Decreased false positives of specific type of faces through a novel training strategy.

2014.01-2017.12 ***Cooperative Video Surveillance with Hybrid Camera Networks for Traffic Managements***

- Funded by National Natural Science Foundation of China.
- Developed crowd tracking algorithms.

2012.11-2014.01 ***3D MID (Mobile Interactive Device)***

- Funded by Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI).

- Developed algorithms for finger detection/tracking and action recognition, based on an infrared camera.

Professional Services

- Reviewer for IEEE International Conference on Computer Vision (ICCV), 2019
- Reviewer for IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 2018, 2019, 2020
- Reviewer for European Conference on Computer Vision (ECCV), 2018, 2020
- Reviewer for AAAI Conference on Artificial Intelligence (AAAI), 2020
- Reviewer for IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- Reviewer for NeuroComputing
- TA for course "Information Retrieval and Data Mining", INY530801, USTC, 2014, 2015
- Chairman, IEEE Student Branch, USTC, 2012-2013
- Volunteer, IEEE International Conference on Image and Graphics (ICIG), 2011

Honors & Award

2019	Outstanding Team for “Research on Face Recognition”, SenseTime Group LTD.
2019	Outstanding Employee, SenseTime Group LTD.
2018	Outstanding Employee, SenseTime Research
2018	Presidential Innovation Award of SenseTime Research, the 1st place
2017	CAS President Award (Excellence Prize)
2015	Guo Rui Scholarship, USTC
2011	Outstanding Thesis for B.S. Degree, USTC
2010	Di Ao Scholarship, USTC
2009	“Robogame Robot Competition, the Battle Track”, Rank 2, (49 Competitors), USTC
2008 & 2009	Excellent Student Award, USTC

Technical Skills

- Programming: C/C++, Python, Matlab, LaTeX
- Deep Learning Frameworks: Caffe, Pytorch
- Operating Systems: Windows, Linux