Zhi Hou

Phone：15800004287
E-mail：houzhi91@gmail.com

Professional Skills

- **Passionating about technology and research, particularly Computer Vision. Experienced in Video Understanding(Activity Recognition), Semantic Segmentation and Facial Emotion Recognition.**
- **Excellent practical abilities: Experienced in Tensorflow, Python, Java. Knowledge in C/C++/JVM/Caffe/Pytorch.**

EDUCATION

M.Eng.
- **South China University of Technology**
- Major：Computer Science
- Advisors：Wen Guihua
- 2014/9 - 2017/6

B.Eng.
- **South China University of Technology**
- 2010/9 - 2014/6
- **The First in our class**
- **GAP of major courses 3.76/4.0, Rank 8/136**

AWARDS

Winner Award of ActivityNet Moments in Time Challenge 2018(1st place in the FULL TRACK)
2011-2012 National Encouragement Scholarship
2010-2011 National Scholarship

WORK EXPERIENCE

2017/7 - 2018/6 — HIKVISION RESEARCH INSTITUTE
Algorithm Engineer in the pre research team. Mainly responsible for algorithm research. The research involved include **Semantic Segmentation, Graph Neural Network, Video Activity Recognition**. **Particularly, In ActivityNet2018 Challenge**, the Inception-ResNet 3D model designed by myself achieved the best single model(top1: **35.1%**), while the ensemble result is 38.6%, **well ahead of the second(37.5%)**. Meanwhile, I improved the speed of data IO in the Tensorflow and efficiently accelerated the distributed training of our models(**0.6 step/s to 0.9 step/s**), finally helping our team train more models during one month. For semantic segmentation, I used a few images to train a two-class model to judge the relation(same object or not) between adjacent superpixel blocks generated by boundary segmentation, finally converting boundary segmentation to semantic super-pixel segmentation successfully and perfectly. And the generalization of this method is awesome due the use of boundary.

2016/7 - 2016/9 — Baidu
Du Booster product team's Android R&D engineering intern. Responsible for product development and optimization. The experience of resolving the bugs of tens of millions of users' product is full of challenge and really improved my practical ability to analyze and solve programming problems: **improving the running speed of program and fixing the occasional bugs**.

PUBLICATIONS

1. Wen G, Hou Z, Li H, et al. Ensemble of deep neural networks with probability-based fusion for facial expression recognition[J]. Cognitive Computation, 2017, 9(5): 597-610
2. Li D, Wen G, Hou Z, et al. RTCRelief-F: an effective clustering and ordering-based ensemble pruning algorithm for facial expression recognition[J]. Knowledge & Information Systems, 2018:1-32.
3. Dong M, Hou Z, Liu Z, et al. Design and implementation of behaviour detection system for the elderly based on smart phone[C]// IEEE International Conference on Robotics and Biomimetics. IEEE, 2012:1741-1746.