Tong XIAO

Ph.D. Candidate in Electronic Engineering

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Education

08/2013 - Present **The Chinese University of Hong Kong**
Ph. D. (expected July 2017) in Electronic Engineering, advised by Prof. Xiaogang Wang
Research interests include computer vision and deep learning

08/2009 - 08/2013 **Tsinghua University, Beijing**
B. Eng. in Computer Science and Technology

Experience

08/2013 - Present **Dept. of Electronic Engineering** MMLAB, The Chinese University of Hong Kong
Research assistant with Prof. Xiaogang Wang
- ILSVRC2016 champions. We won the **1st places** in ImageNet detection, video object tracking, and Places2 scene parsing. I designed and pre-trained the base convolutional neural network, which was later fine-tuned on the object detection, tracking, and scene parsing tasks. See http://image-net.org/challenges/LSVRC/2016/results for more details.
- Researched on learning generic feature representations from multiple domains of data sources. When applied to the person re-identification, the proposed method outperforms state-of-the-art by large margin on five datasets. Resulted in a CVPR 2016 paper.

05/2014 - 08/2014 **Institute of Deep Learning (IDL), Baidu** Beijing
Intern - Researched on training a convolutional neural network with massive noisy labeled web images for classification. The proposed method leverages the need of large-scale manually labeled datasets, which are expensive to obtain. Resulted in a CVPR 2015 paper.

07/2012 - 03/2013 **Face++, Megvii** Beijing
Intern - Developed the initial version face detection and tracking systems for the start-up company in collaboration. My work contributed to
- http://www.faceplusplus.com – an online service platform for face recognition
- Crows Coming – the first move-your-body game on iOS

Publications

Joint Detection and Identification Feature Learning for Person Search
Tong Xiao, Shuang Li, Bochao Wang, Liang Lin, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), **Spotlight**, 2017*

Learning Deep Feature Representations with Domain Guided Dropout for Person Re-identification
Tong Xiao, Hongsheng Li, Wanli Ouyang, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2016*

Learning from Massive Noisy Labeled Data for Image Classification
Tong Xiao, Tian Xia, Yi Yang, Chang Huang, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2015*

Person Search with Natural Language Description
Shuang Li, **Tong Xiao**, Hongsheng Li, Bolei Zhou, Dayu Yue, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2017

Object Detection in Videos with Tubelet Proposal Networks
Kai Kang, Hongsheng Li, **Tong Xiao**, Wanli Ouyang, Junjie Yan, Xihui Liu, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2017

Crafting GBD-Net for Object Detection
X Zeng, W Ouyang, J Yan, H Li, **T Xiao**, K Wang, Y Liu, Y Zhou, B Yang, Z Wang, H Zhou, X Wang
*IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), Accepted to be Published*, 2017

T-CNN: Tubelets with convolutional neural networks for object detection from videos
K Kang, H Li, J Yan, X Zeng, B Yang, **T Xiao**, C Zhang, Z Wang, R Wang, X Wang, W Ouyang
arXiv preprint arXiv:1604.02532, 2016

Convolutional Neural Networks with Low-rank Regularization
Cheng Tai, **Tong Xiao**, Yi Zhang, Xiaogang Wang, Weinan E
*International Conference on Learning Representations (**ICLR**)*, 2016

DeepReID: Deep Filter Pairing Neural Network for Person Re-Identification
Wei Li, Rui Zhao, **Tong Xiao**, Xiaogang Wang
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2014

Professional Activities

Reviewer
International Journal of Computer Vision (IJCV), 2017
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2017
IEEE Transactions on Image Processing (TIP), 2017
Elsevier Journal of Pattern Recognition, 2017
International Conference on Computer Vision (ICCV), 2017
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017
Multimedia Tools and Applications (MTAP), 2017
European Conference on Computer Vision (ECCV), **Outstanding Reviewer Award**, 2016
Elsevier Journal of Computer Vision and Image Understanding (CVIU), 2016
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2016

Awards

2010 - 2012 **Undergraduate Scholarship** Tsinghua University
Awarded to top 10% students each year under overall evaluation

05/2010 **Champion** 14th Tsinghua University Artificial Intelligence Contest
Develop AI programs for a computer game and compete with other players
Website: https://ai.net9.org News (in Chinese): http://goo.gl/AJGBW2

12/2008 **First Prize, 3rd Place** National Olympiad in Informatics (Province)
Competitors design and implement algorithms to solve problems

Skills

Programming Languages
Proficient in C/C++, Python, and Matlab. Experience with Java and JavaScript.

Tools and Frameworks
Contributing to Caffe and Torch. Parallel programming with MPI, OpenMP, MapReduce, and CUDA. Experience with Qt, OpenCV, and Git.