Peng Tang

Contact Information

Salesforce Research
Address: 502 Emerson Street, Palo Alto, CA 94301, USA
Email: tangpeng723@gmail.com
Homepage: https://pengtang.xyz
Github: https://github.com/ppengtang

Education

Ph.D. student in Computer Vision and Machine Learning *2015.09–2019.06*
Huazhong University of Science and Technology, Wuhan, Hubei, China
Focus area: weakly supervised learning, deep learning, image classification, object detection.
Advisor: Wenyu Liu and Xinggang Wang.

Visiting Ph.D. student in Computer Vision and Machine Learning *2017.10–2018.10*
The Johns Hopkins University, Baltimore, MD, USA
Focus area: weakly supervised learning, deep learning, object detection.
Advisor: Alan Yuille.

B.S. in Electronic Information Engineering *2010.09–2014.06*
Huazhong University of Science and Technology, Wuhan, Hubei, China

Research Interests

Deep learning, weakly supervised learning, image classification, object detection in images/videos.

Research Experience

Research Engineer *2019.09–present*
Salesforce Research, Palo Alto, CA, USA

Work on object detection.

Research Intern *2018.12–2019.03*
Tencent AI Lab, Shenzhen, China

Work with Lin Ma and Zequn Jie on multi-label image classification.

Research Intern *2016.12–2017.06*
Internet Media Group, Microsoft Research Asia, Beijing, China

Work with Chunyu Wang and Jingdong Wang on object detection in videos.

Research Assistant *2014.09–2016.11*
Media and Communication Lab, Huazhong University of Science and Technology, Wuhan, Hubei, China

Work with Wenyu Liu and Xinggang Wang on weakly supervised learning and deep learning for image classification and object detection.

Publications

Conferences

Hongru Zhu, **Peng Tang**, Jeongho Park, Soojin Park, and Alan Yuille. Robustness of Object Recognition under Extreme Occlusion in Humans and Computational Models. *Annual Meeting of the Cognitive Science Society (CogSci)*, 2019.
Song Bai, **Peng Tang**, Longin Jan Latecki, and Philip Torr. Re-ranking via Metric Fusion for Object Retrieval and Person Re-identification. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.
Yuyin Zhou, Yan Wang, **Peng Tang**, Song Bai, Wei Shen, Elliot K. Fishman, and Alan Yuille.
Semi-Supervised 3D Abdominal Multi-Organ Segmentation Via Deep Multi-Planar Co-Training. *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2019.

Peng Tang, Xinggang Wang, Angtian Wang, Yongluan Yan, Wenyu Liu, Junzhou Huang, and Alan Yuille. Weakly Supervised Region Proposal Network and Object Detection. *European Conference on Computer Vision (ECCV)*, 2018.

Yan Wang, Yuyin Zhou, **Peng Tang**, Wei Shen, Elliot K. Fishman, and Alan Yuille. Training Multi-organ Segmentation Networks with Sample Selection by Relaxed Upper Confident Bound. *International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)*, 2018.

Gangming Zhao, Zhaoxiang Zhang, He Guan, **Peng Tang**, and Jingdong Wang. Rethinking ReLU to Train Better CNNs. *International Conference on Pattern Recognition (ICPR)*, 2018.

Peng Tang, Xinggang Wang, Xiang Bai, and Wenyu Liu. Multiple Instance Detection Network with Online Instance Classifier Refinement. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.

Journals

Peng Tang, Chunyu Wang, Xinggang Wang, Wenyu Liu, Wenjun Zeng, and Jingdong Wang. Object Detection in Videos by High Quality Object Linking. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2019.

Peng Tang, Xinggang Wang, Song Bai, Wei Shen, Xiang Bai, Wenyu Liu, and Alan Yuille. PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2018.

Peng Tang, Xinggang Wang, Baoguang Shi, Xiang Bai, Wenyu Liu, and Zhuowen Tu. Deep FisherNet for Image Classification. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2018.

Xinggang Wang, Yongluan Yan, **Peng Tang**, Xiang Bai, and Wenyu Liu. Revisiting Multiple Instance Neural Networks. *Pattern Recognition (PR)*, 2018.

Peng Tang, Xinggang Wang, Zilong Huang, Xiang Bai, and Wenyu Liu. Deep Patch Learning for Weakly Supervised Object Classification and Discovery. *Pattern Recognition (PR)*, 2017.

Peng Tang, Xinggang Wang, Bin Feng, and Wenyu Liu. Learning Multi-instance Deep Discriminative Patterns for Image Classification. *IEEE Transactions on Image Processing (TIP)*, 2017.

Peng Tang, Jin Zhang, Xinggang Wang, Bin Feng, Fabio Roli, and Wenyu Liu. Learning Extremely Shared Middle-Level Image Representation for Scene Classification. *Knowledge and Information Systems (KIS)*, 2017.

Academic Activities

Reviewer for the IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Medical Imaging, IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Systems, Man and Cybernetics: Systems, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Multimedia, Pattern Recognition, Computer Vision and Image Understanding, SCIENCE CHINA Information Sciences, IEEE Signal Processing Letters, Pattern Recognition Letters, and Neurocomputing journals; the Annual Conference on Neural Information Processing Systems 2016, IEEE International Conference on Image Processing 2017/2018/2019, IEEE Conference on Computer Vision and Pattern Recognition 2018/2019/2020, European Conference on Computer Vision 2018, Asian Conference on Computer Vision 2018, IEEE International Conference on Computer Vision 2019, CVPR 2019 Workshop on Weakly Supervised Learning for Real-World Computer Vision Applications and the 1st Learning from Imperfect Data (LID) Challenge, British Machine Vision Conference 2019, and AAAI Conference on Artificial Intelligence 2020 conferences.

Skills

Programming: Fluent in Python and MATLAB. Also fluent in markup language LaTeX. Reasonably familiar with C/C++ and CUDA.

Computer vision and machine learning: Familiar with several CV/ML algorithms including object detection/recognition, semantic segmentation, action recognition, convolutional neural networks, and multiple instance learning. Proficient in deep learning framework PyTorch and Caffe, as well as general purpose libraries including scikit-learn and VLFeat.

Natural languages: Mandarin (Native); English (Familiar).