LIMIN WANG

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BACKGROUND

ETH Zurich, Zurich, Switzerland *December 2015 - now*
Post-doctoral Research Fellow with Computer Vision Lab, Supervisor: Prof. Luc Van Gool.
Research project: ERC Advanced Grant *VarCity*.

The Chinese University of Hong Kong, Hong Kong *August 2011 - December 2015*
Ph.D. in Information Engineering with Multimedia Lab, Supervisor: Prof. Xiaoou Tang.
Thesis title: Representing and Modeling Human Actions in Videos.
Awarded by Hong Kong PhD Fellowship.

Nanjing University, Nanjing, China *September 2007 - June 2011*
B.Sc. in Computer Science and Technology, Supervisor: Prof. Tong Lu.
Thesis title: Multiclass Object Detection by Combining Local Appearances and Context.
Best Bachelor Thesis Team of Jiangsu Province (first author).

RESEARCH INTERESTS

Computer Vision: action recognition and detection, scene recognition
Machine Learning: representation learning, deep learning.

HONORS AND AWARDS

- CVPR Outstanding Reviewer *2017*
- CVPR Doctoral Consortium Award (Mentor: Rahul Sukthankar) *2015*
- Hong Kong PhD Fellowship (114 candidates in Hong Kong) *2011*
- Best Bachelor Thesis Team of Jiangsu Province (1 recipient in Nanjing University) *2011*
- Outstanding Graduate of Nanjing University *2011*
- Excellent Undergraduate Innovation Project of Nanjing University *2010*
- Google Scholarship (1 recipient in CS department) *2010*
- National Scholarship (3 recipients in CS department) *2009*
- Province First Prize, China Undergraduate Mathematical Contest in Modeling *2009*
- Tung OOCL (Orient Overseas Container Line) Scholarship (3 recipients in CS department) *2008*
- Outstanding Student of Nanjing University *2008*

CONTESTS

- ActivityNet Challenge: 1st runner-up in video classification and action detection. *2017*
- ImageNet Large Scale Visual Recognition Challenge: 4th place in scene classification. *2016*
- ActivityNet Large Scale Activity Recognition Challenge: **1st place in video classification**. *2016*
- Large-scale Scene Understanding Challenge: **1st place in scene classification**. *2016*
- ImageNet Large Scale Visual Recognition Challenge: 1st runner up in scene classification. *2015*
- ChaLearn Looking at People Challenge, ICCV: 3rd place in cultural event recognition. *2015*
- Large-scale Scene Understanding Challenge: 1st runner up in scene classification. *2015*
- THUMOS'15 Action Recognition Challenge: top performer. *2015*
- ChaLearn Looking at People Challenge: **1st place in action spotting, event recognition.** *2015*

· THUMOS'14 Action Recognition Challenge: 1st runner up in action detection. *2014*
· ChaLearn Looking at People Challenge: **1st place in action spotting.** *2014*
· THUMOS'13 Action Recognition Challenge: 4th place. *2013*
· ChaLearn Multi-Modal Gesture Recognition Challenge: 4th place. *2013*

PUBLICATIONS (GOOGLE CITATION: 1435, H-INDEX: 18)

Google Scholar: https://scholar.google.com.hk/citations?user=HEuN8PcAAAAJ&hl=en

Submitted Papers

[R1] **L. Wang**, Y. Xiong, Z. Wang, Y. Qiao, D. Lin, X. Tang, and L. Van Gool, *Temporal Segment Networks for Action Recognition in Videos*, submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**).

[R2] B. Zhang, **L. Wang**, Z. Wang, Y. Qiao, and H. Wang, *Real-time Action Recognition with Deeply Connected Motion Vector CNNs*, submitted to IEEE Transactions on Image Processing (**TIP**).

Journal Papers

[J1] **L. Wang**, Z. Wang, Y. Qiao, and L. Van Gool, *Transferring Deep Object and Scene Representations for Event Recognition in Still Images*, in International Journal of Computer Vision (**IJCV**), 2017.

[J2] **L. Wang**, S. Guo, W. Huang, Y. Xiong, and Y. Qiao, *Knowledge Guided Disambiguation for Large-Scale Scene Recognition with Multi-resolution CNNs*, in IEEE Transactions on Image Processing (**TIP**), Vol. 26, No. 4, 2017.

[J3] Z. Wang, **L. Wang**, Y. Wang, B. Zhang, and Y. Qiao, *Weakly Supervised PatchNets: Describing and Aggregating Local Patches for Scene Recognition*, in IEEE Transactions on Image Processing (**TIP**), Vol. 26, No. 4, 2017.

[J4] S. Guo, W. Huang, **L. Wang**, and Y. Qiao, *Locally Supervised Deep Hybrid Model for Scene Recognition*, in IEEE Transactions on Image Processing (**TIP**), Vol. 26, No. 2, 2017.

[J5] Z. Yuan, H. Wang, **L. Wang**, T. Lu, P. Shivakumara, and C. L. Tan, *Modeling Spatial Layout for Scene Image Understanding via a Novel Multiscale Sum-Product Network*, in Expert Systems With Applications (**ESWA**), Vol. 63, 2016.

[J6] X. Peng, **L. Wang**, X. Wang, and Y. Qiao, *Bag of Visual Words and Fusion Methods for Action Recognition: Comprehensive Study and Good Practice*, in Computer Vision and Image Understanding (**CVIU**), Vol. 150, 2016.

[J7] **L. Wang**, Y. Qiao, and X. Tang, *MoFAP: A Multi-Level Representation for Action Recognition*, in International Journal of Computer Vision (**IJCV**), Vol. 119, No. 3, 2016.

[J8] **L. Wang**, Y. Qiao, and X. Tang, *Latent Hierarchical Model of Temporal Structure for Complex Activity Classification*, in IEEE Transactions on Image Processing (**TIP**), Vol. 23, No. 2, 2014.

Top-Tier Vision Conference Papers

[C1] Y. Zhao, Y. Xiong, **L. Wang**, Z. Wu, X. Tang, and D. Lin, *Temporal Action Detection with Structured Segment Networks*, in IEEE International Conference on Computer Vision (**ICCV**), Venice, Italy, 2017.

[C2] **L. Wang**, Y. Xiong, D. Lin, and L. Van Gool, *UntrimmedNets for Weakly Supervised Action Recognition and Detection*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Honolulu, Hawaii, USA, 2017.

[C3] J. Song, **L. Wang**, L. Van Gool, and O. Hilliges, *Thin-Slicing Network: A Deep Structural Model for Human Pose Estimation in Videos*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Honolulu, Hawaii, USA, 2017 (**oral presentation**).

[C4] **L. Wang**, Y. Xiong, Z. Wang, Y. Qiao, D. Lin, X. Tang, and L. Van Gool, *Temporal Segment Networks: Towards Good Practices for Deep Action Recognition*, in European Conference on Computer Vision (**ECCV**), Amsterdam, Netherlands, 2016.

[C5] **L. Wang**, Y. Qiao, X. Tang, and L. Van Gool, *Actionness Estimation Using Hybrid Fully Convolutional Networks*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Las Vegas, Nevada, USA, 2016.

[C6] B. Zhang, **L. Wang**, Y. Qiao, Z. Wang, and H. Wang, *Real-time Action Recognition with Enhanced Motion Vector CNNs*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Las Vegas, Nevada, USA, 2016.

[C7] **L. Wang**, Y. Qiao, and X. Tang, *Action Recognition with Trajectory-Pooled Deep-Convolutional Descriptors*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Boston, Massachusetts USA, 2015.

[C8] **L. Wang**, Y. Qiao, and X. Tang, *Video Action Detection with Relational Dynamic-Poselets*, in European Conference on Computer Vision (**ECCV**), Zurich, Switzerland, 2014.

[C9] X. Peng*, **L. Wang***, Y. Qiao, and Q. Peng, *Boosting VLAD with Supervised Dictionary Learning and High-Order Statistics*, in European Conference on Computer Vision (**ECCV**), Zurich, Switzerland, 2014. (first two authors contribute equally)

[C10] Z. Cai, **L. Wang**, X. Peng, and Y. Qiao, *Multi-view Super Vector for Action Recognition*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Columbus, Ohio, USA, 2014 (**oral presentation**).

[C11] **L. Wang**, Y. Qiao, and X. Tang, *Mining Motion Atoms and Phrases for Complex Action Recognition*, in IEEE International Conference on Computer Vision (**ICCV**), Sydney, Australia, 2013.

[C12] **L. Wang**, Y. Qiao, and X. Tang, *Motionlets: Mid-Level 3D Parts for Human Motion Recognition*, in IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), Portland, Oregon, USA, 2013.

Other Conference Papers

[C1] Y. Wang, J. Song, **L. Wang**, L. Van Gool, and O. Hilliges, *Two-Stream SR-CNNs for Action Recognition in Videos*, in British Machine Vision Conference (BMVC), York, UK, 2016.

[C2] Z. Wang, Y. Wang, **L. Wang**, and Y. Qiao, *Codebook Enhancement of VLAD Representation for Visual Recognition*, in IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Shanghai, China, 2016.

[C3] X. Peng, **L. Wang**, Y. Qiao, and Q. Peng, *A Joint Evaluation of Dictionary Learning and Feature Encoding for Action Recognition*, in International Conference on Pattern Recognition (ICPR), Stockholm, Sweden, 2014.

[C4] X. Wang, **L. Wang**, and Y. Qiao, *A Comparative Study of Encoding, Pooling and Normalization Methods for Action Recognition*, in Asian Conference on Computer Vision (ACCV), Daejeon, Korea, 2012.

[C5] **L. Wang**, Y. Wu, T. Lu, and K. Chen, *Multiclass Object Detection by Combining Local Appearances and Context*, in ACM Conference on Multimedia (ACM MM), Scottsdale, Arizona, USA, 2011.

[C6] **L. Wang**, Y. Wu, Z. Tian, Z. Sun, and T. Lu, *A Novel Approach for Robust Surveillance Video Content Abstraction*, in Pacific-Rim Conference on Multimedia (PCM), Shanghai, China, 2010.

STUDENTS

- Jie Song, now PhD student at ETH Zurich.
- Yifan Wang, now PhD student at ETH Zurich.
- Bowen Zhang, now PhD student at University of Southern California.
- Zhe Wang, now PhD student at University of California, Irvine.
- Zhuowei Cai, now working at Google.

TEACHING ASSISTANT

- ENGG2430, Probability and Statistics for Engineers *2015*
- ENGG1100, Introduction to Engineering Design *2014*

TALKS

- *Towards Efficient End-to-End Architectures for Action Recognition and Detection in Videos*
  Invited talk at Workshop on Frontiers of Video Technology, Adobe Research, 2017
- *Object-Scene Convolutional Neural Networks for Event Recognition in Images*
  Talk at ChaLearn Looking at People Challenge, CVPR Workshop, 2015
- *Exploring Fisher Vector and Deep Networks for Action Spotting*
  Talk at ChaLearn Looking at People Challenge, CVPR Workshop, 2015

ACADEMIC SERVICE

Journal Reviewer

- Reviewer of IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**)
- Reviewer of IEEE Transactions on Image Processing (**T-IP**)
- Reviewer of IEEE Transactions on Neural Networks and Learning Systems (**T-NNLS**)
- Reviewer of IEEE Transactions on Multimedia (**T-MM**)
- Reviewer of IEEE Transactions on Circuits and Systems for Video Technology (**T-CSVT**)
- Reviewer of Computer Vision and Image Understanding (**CVIU**)
- Reviewer of Image and Vision Computing (**IVC**)
- Reviewer of Pattern Recognition (**PR**)
- Reviewer of Pattern Recognition Letter (**PRL**)
- Reviewer of Machine Vision and Applications (**MVA**)
- Reviewer of Journal of Visual Communication and Image Representation (**JVCI**)

Program Committee and Conference Reviewer

- Program Chair of CVPR17 workshop on learning from web data
- Program Committee of CVPR15, ICCV15 workshop on ChaLearn LAP
- Program Committee of ECCV16 workshop on TASK-CV
- Reviewer of European Conference on Computer Vision (**ECCV**), 2016
- Reviewer of Asian Conference on Computer Vision (**ACCV**), 2016
- Reviewer of International Conference on Pattern Recognition (**ICPR**), 2016
- Reviewer of IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017

· Reviewer of IEEE International Conference on Computer Vision (**ICCV**), 2017
· Reviewer of IEEE International Conference on Automatic Face and Gesture Recognition (**FG**), 2017