

# Wanli Ouyang

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CONTACT INFORMATION	<p><i>Mail:</i> Rm 650, J03 - Electrical Engineering Building , The University of Sydney Sydney, Australia <i>Web:</i> <a href="https://scholar.google.com.au/citations?user=pw_OZ_UAAAAJ&amp;hl=en">https://scholar.google.com.au/citations?user=pw_OZ_UAAAAJ&amp;hl=en</a></p> <p><i>Phone:</i> (+61) 2 8627 6621 <i>E-mail:</i> <a href="mailto:wanli.ouyang@usyd.edu.au">wanli.ouyang@usyd.edu.au</a> Nationality: China</p>
OCCUPATION	Senior Lecturer at the University of Sydney.
EDUCATION	<ul style="list-style-type: none"><li>• Ph.D. student in Electronic Engineering, graduation: 2007-2010. <b>The Chinese University of Hong Kong</b>, Hong Kong, China. Advisor: Prof. Wai-Kuen Cham</li><li>• M.S. in Computer science, 2003-2006 <b>Beijing University of Technology</b>, Beijing, China. Advisor: Prof. Chuangbai Xiao</li><li>• B.S. in Computer science, 1999-2003 <b>Xiangtan University</b>, Xiangtan, Hunan, China.</li></ul>
RESEARCH HIGHLIGHTS	<p>38 papers on CVPR, ICCV, NIPS, ICML and ECCV. 7 papers on TPAMI, 1 paper on TIP, 1 paper on CSVT, 1 IJCV paper. Google scholar citation 3206, h-index 21 (until 8/Nov./2017). Awarded as the ICCV2015 outstanding reviewer.</p> <p>Object detection is one of the most important research topics in computer vision. The ImageNet Large Scale Visual Recognition Challenge (ILSVRC) has now drawn the most attention from the computer vision community because of its high impact on both academia and industry. Many research groups, such as Google, Microsoft, Baidu, UC-berkeley, Oxford, have joined this challenge. In ILSVRC 2014, the team led by him is ranked the second on the object detection task (The team from Google is ranked the first). In ILSVRC 15, his team is ranked the first for object detection from video and the second for object detection from still image (The team from Microsoft is ranked the first). In ILSVRC 16, his team is ranked the first for object detection from still image and the first for object detection from video.</p>
PROFESSIONAL SOCIETIES	IEEE Senior Member
PROFESSIONAL EXPERIENCE	<ul style="list-style-type: none"><li>• Feb. 2011-Nov. 2011, Research Assistant, Department of Electronic Engineering, The Chinese University of Hong Kong, Hong Kong.</li><li>• Dec. 2011-Oct. 2013, Post-doctoral fellow, Department of Electronic Engineering, The Chinese University of Hong Kong, Hong Kong.</li><li>• Oct. 2013-Aug. 2017, Research Assistant Professor, Department of Electronic Engineering, The Chinese University of Hong Kong, Hong Kong.</li><li>• Aug. 2017- , Senior lecturer, School Electrical and Information Engineering, The University of Sydney</li></ul>
CONTACT OF REFEREE	<ul style="list-style-type: none"><li>• Xiaogang Wang, <a href="mailto:xgwang@ee.cuhk.edu.hk">xgwang@ee.cuhk.edu.hk</a>, the department of Electronic Engineering, the Chinese University of Hong Kong</li></ul>

- Xiao'ou Tang, xtang@ie.cuhk.edu.hk, the department of Information Engineering, the Chinese University of Hong Kong
- Wai-Kuan Cham, wkcham@ee.cuhk.edu.hk, the department of Electronic Engineering, the Chinese University of Hong Kong

#### RESEARCH GRANTS

- Principal Investigator, Human pose estimation and social interaction recognition with deep neural networks (Project number: CUHK 14206114), sponsored by Research Grants Council - General Research Fund, 01/01/2015-31/12/2017, HKD 500,000.
- Principal Investigator, Deformable and rotatable contextual deep learning for generic object detection (Project number: CUHK 14205615), sponsored by Research Grants Council - General Research Fund, 01/10/2015-30/9/2018, HKD 695,861.
- Co-Investigator, Using deep learning to support urban land use classification with optical imagery and LiDAR Ddata (Project number: CUHK 14606315), sponsored by Research Grants Council - General Research Fund, 01/10/2015-30/9/2018, HKD 585,000.
- Co-Investigator, Using deep learning to support urban land use classification with optical imagery and LiDAR Ddata (Project number: CUHK 14606315), sponsored by Research Grants Council - General Research Fund, 2015-2016, HKD 4,400,000.

#### CO-SUPERVISED STUDENTS

- Rui Zhao [6, 44, 46, 53].
- Xingyu Zeng [2, 3, 7-9, 32, 43, 45, 49, 51].
- Xiao Chu [27, 30, 38, 41, 47].
- Wei Yang [19, 27, 37, 41].
- HongYang Li [33, 40].

#### Publication List

(7 TPAMI, 1 IJCV, 4 OTHER IEEE TRANSACTIONS, 38 PAPERS ON CVPR, ICCV, ECCV, NIPS AND ICML. 3206 CITATIONS ON GOOGLE SCHOLAR. 787 CITATIONS ON WEB OF SCIENCE.

- Highlights
  - According to Google Scholar Metrics, CVPR is the top publication venue in the field of computer vision and pattern recognition, according to the h5-index, a citation measure for the recent five years. (PAMI and ICCV rank second and third, respectively.) CVPR also ranks 6th in the category of Engineering and Computer Science, and it is the highest-ranked venue in Computer Science.
  - 7 papers on IEEE Trans. on PAMI (IF=5.694) [1, 2, 5, 6, 9, 11, 12], 1 paper accepted on IJCV [7], 4 papers on other IEEE Transactions [3, 4, 8, 10], 22 papers on CVPR [23-29, 34-39, 43, 44, 46, 47, 51-55], 6 papers on ICCV [40-42, 48-50], 1 paper on ICML [33], 3 paper on ECCV [31, 32, 45], 2 papers on NIPS [22, 30].
  - At CVPR 2012, there were only two papers on deep learning, one is from Wanli Ouyang; at ICCV 2013, there were eight papers on deep learning, and two of them were from Wanli Ouyang and his supervised student.
  - ILSVRC is referred to as the Olympics in computer vision. Extending the deep models developed in [48] and [49], we ranked No.2 (object detection task) in the ImageNet Large Scale Visual Recognition Challenge (ILSVRC) 2014. The mean average precision has been significantly improved from 22.58% (best performance of ILSVRC 2013) to 50.7% in our CVPR 2015 paper [43]. In ILSVRC 2015, we ranked No. 1 in object detection from video and No. 2 in object detection from still images. In ILSVRC 2016, we ranked No. 1 in object detection from video and No. 1 in object detection from still images.

- Papers on deep learning at TPAMI, IJCV, CVPR, ICCV, NIPS, ECCV, and CSVT [1, 2, 5, 7, 8, 18–22, 22–45, 47–49, 51, 54].
- Papers on locating objects and persons at CVPR, ICCV, ECCV, IJCV, TIP, TCSVT, and TPAMI [1, 2, 5–12, 18–21, 23, 26, 29, 31, 34, 36, 39, 40, 42–46, 48, 49, 51, 54, 55].
- Papers on person detection, tracking, and interaction recognition [?, 1, 2, 6–9, 19, 20, 37, 38, 41, 42, 45–54].
- Student Author Notations.
  - \*student

JOURNAL  
PUBLICATIONS

\*

#### References

- [1] **Wanli Ouyang**, Hui Zhou, Hongsheng Li, Quanquan Li, Junjie Yan, Xiaogang Wang, "Jointly learning deep features, deformable parts, occlusion and classification for pedestrian detection," *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, accepted, 2017. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [2] \*Xingyu Zeng (equal contribution), **Wanli Ouyang** (equal contribution), Junjie Yan, Hongsheng Li, Tong Xiao, Kun Wang, Yu Liu, Yucong Zhou, Bin Yang, Zhe Wang, Hui Zhou, Xiaogang Wang, "Crafting GBD-Net for Object Detection," *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, accepted, 2017. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [3] \*Kai Kang, Hongsheng Li, Junjie Yan, Xingyu Zeng, Bin Yang, Tong Xiao, Cong Zhang, Zhe Wang, Ruohui Wang, Xiaogang Wang, **Wanli Ouyang**, T-CNN: Tubelets with Convolutional Neural Networks for Object Detection from Videos, *IEEE Transactions on Circuits and Systems for Video Technology (CSVT)*, accepted, 2017. (Impact factor: 3.599)
- [4] **Wanli Ouyang**, T Zhao, W. Cham, L. Wei, et. al. "Fast Full-Search Equivalent Pattern Matching Using Asymmetric Haar Wavelet Packets. , *IEEE Trans. Circuits Syst. Video Technol. (CSVT)*, accepted, 2016. (Impact factor: 3.599)
- [5] **Wanli Ouyang**, Xiaogang Wang, et. al. "DeepID-Net: Object Detection with Deformable Part Based Convolutional Neural Networks", *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, 39(7):1320-1334, Jul. 2017. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [6] \*R. Zhao, **W. Ouyang (Correspondence author)**, X. Wang, "Person Re-identification by Saliency Learning", *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, 39(2):356-70, Feb. 2017. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [7] **W. Ouyang**, X. Zeng, X. Wang, "Learning Mutual Visibility Relationship for Pedestrian Detection with a Deep Model", *International Journal of Computer Vision (IJCV)*, 120(1):14-27, Oct. 2016. (Impact factor: 8.222, Ranked #2 in Computer Science-Artificial Intelligence)
- [8] **W. Ouyang**, X. Zeng, X. Wang, "Partial Occlusion Handling in Pedestrian Detection with a Deep Model", *IEEE Trans. Circuits Syst. Video Technol. (CSVT)*, 26(11):2123-37, Nov. 2016. (Impact factor: 3.599)

- [9] **W. Ouyang**, X. Zeng and X. Wang, “Single-Pedestrian Detection Aided by Two-Pedestrian Detection”, *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, 37(9):1875 - 1889, Sept. 2015. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [10] **W. Ouyang**, R. Zhang and W.-K. Cham, “Segmented Gray-Code Kernels for Fast Pattern Matching”, *IEEE Trans. Image Process. (TIP)*, 22(4):1512-1525, Apr. 2013. (ERA rank A\* journal, Impact factor: 4.828)
- [11] **W. Ouyang**, F. Tombari, S. Mattoccia, L. D. Stefano, and W.-K. Cham, “Performance Evaluation of Full Search Equivalent Pattern Matching Algorithms,” *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, 34(1):127-143, Jan. 2012. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [12] **W. Ouyang** and W.-K. Cham, “Fast algorithm for Walsh Hadamard transform on sliding windows”, *IEEE Trans. Pattern Anal. Mach. Intell. (PAMI)*, 32(1):165-171, Jan. 2010. (ERA rank A\* journal, Impact factor: 8.329, Ranked #1 in Computer Science-Artificial Intelligence)
- [13] F. Tombari, **W. Ouyang**, L. Di Stefano, W.K. Cham, “Adaptive Low Resolution Pruning for Fast Full Search Equivalent Pattern Matching,” *Pattern Recognition Letters (JPRL)*, 32(15), 2119-2127, November 2011.
- [14] R. Zhang, **W. Ouyang** and W.-K. Cham, “Image Postprocessing by Non-local Kuan’s Filter,” *Journal of Visual Communication and Image Representation.*, Elsevier, 22 (2011), pp. 251-262.
- [15] R. Zhang, **W. Ouyang** and W.-K. Cham, “Image Edge Detection Using Hidden Markov Chain Model Based on the Non-decimated Wavelet”, *Int. Journal of Signal Processing, Image Processing and Pattern*, 1(2):pp.109-117, Mar. 2009.
- [16] **W. Ouyang**, C. Xiao, and G. Liu. “A new IDCT and motion compensation algorithm based on very long instruction word (VLIW) (in Chinese)”, *ACTA ELECTRONICA SINICA (One of the best Electronic Engineering journals in China)*, 33(11):2074-2079, Nov. 2005.
- [17] C. Xiao, **W. Ouyang** and G. Liu. “Loop Optimization Study on the Inverse Scan and Inverse Quantization Based on VLIW” (in Chinese), *Journal of Beijing University of Technology*, 31(4):374-378, 2005.

TOP-TIER  
CONFERENCE  
PUBLICATIONS

- [18] **Wanli Ouyang**, Kun Wang, Xin Zhu, Xiaogang Wanli. ”Chained Cascade Network for Object Detection”, Proc. ICCV, 2017. (ERA rank A conference)
- [19] \*Wei Yang, Shuang Li, **Wanli Ouyang**, Hongsheng Li, Xiaogang Wang. ”Learning Feature Pyramids for Human Pose Estimation”, Proc. ICCV, 2017. (ERA rank A conference)
- [20] \*Yikang Li, **Wanli Ouyang**, Bolei Zhou, Kun Wang, Xiaogang Wang. ”Scene Graph Generation from Objects, Phrases and Region Captions”, Proc. ICCV, 2017. (ERA rank A conference)
- [21] \*Qi Chu, **Wanli Ouyang**, Hongsheng Li, Xiaogang Wang, Bin Liu, Nenghai Yu. ”Online Multi-Object Tracking Using CNN-based Single Object Tracker with Spatial-Temporal Attention Mechanism”, Proc. ICCV, 2017. (ERA rank A conference)

- [22] \*Dan Xu, Wanli Ouyang, Xavier Alameda-Pineda, Elisa Ricci, Xiaogang Wang, Nicu Sebe. "Learning Deep Structured Multi-Scale Features using Attention-Gated CRFs for Contour Prediction", Proc. NIPS, 2017. (ERA rank A conference)
- [23] \*Kai Kang, Hongsheng Li, **W. Ouyang**, Junjie Yan, Xihui Liu, Tong Xiao, Xiaogang Wang. "Object Detection in Videos with Tubelet Proposal Networks", Proc. CVPR, 2017. (ERA rank A conference)
- [24] \*Feng Zhu, Hongsheng Li, **W. Ouyang**, Nenghai Yu, Xiaogang Wang. "Learning Spatial Regularization with Image-level Supervisions for Multi-label Image Classification", Proc. CVPR, 2017. (ERA rank A conference)
- [25] \*Yu Liu, Junjie Yan, **W. Ouyang**. "Quality Aware Network for Set to Set Recognition", Proc. CVPR, 2017. (ERA rank A conference)
- [26] \*Yikang Li, **W. Ouyang**, Xiaogang Wang. "ViP-CNN: A Visual Phrase Reasoning Convolutional Neural Network for Visual Relationship Detection", Proc. CVPR, 2017. (ERA rank A conference)
- [27] \*Xiao Chu, \*Wei Yang, **W. Ouyang**, Xiaogang Wang, Alan Yuille. "Multi-Context Attention for Human Pose Estimation", Proc. CVPR, 2017. (ERA rank A conference)
- [28] \*Dan Xu, Elisa Ricci, **W. Ouyang**, Xiaogang Wang, Nicu Sebe. "Multi-Scale Continuous CRFs as Sequential Deep Networks for Monocular Depth Estimation", Proc. CVPR, 2017. (ERA rank A conference)
- [29] \*Dan Xu, **W. Ouyang**, Elisa Ricci, Xiaogang Wang, Nicu Sebe. "Learning Cross-Modal Deep Representations for Robust Pedestrian Detection", Proc. CVPR, 2017. (ERA rank A conference)
- [30] \*X. Chu, W. Ouyang, H. Li, X. Wang. "CRF-CNN: Modeling Structured Information in Human Pose Estimation", Advances In Neural Information Processing Systems (NIPS), 2016. (ERA rank A conference)
- [31] \*Z. Wang, H. Li, W. Ouyang, X. Wang. "Learnable Histogram: Statistical Context Features for Deep Neural Networks", European Conf. on Computer Vision (ECCV), 2016. (ERA rank A conference)
- [32] \*Xingyu Zeng, **Wanli Ouyang**, Bin Yang, Junjie Yan, Xiaogang. "Gated Bi-directional CNN for Object Detection", European Conf. on Computer Vision (ECCV), 2016. (ERA rank A conference)
- [33] \*Hongyang Li, **Wanli Ouyang**, Xiaogang Wang "Multiple Bias on Non-linearity Activation in Deep Neural Networks", In Proc. ICML 2016. (ERA rank A conference)
- [34] **W. Ouyang**, X. Wang, C. Zhang, and X. Yang. "Factors in finetuning deep model for object detection with long-tail distribution". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016. (ERA rank A conference)
- [35] \*T. Xiao, H. Li, **W. Ouyang**, and X. Wang. "Learning Deep Feature Representations with Domain Guided Dropout". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016. (ERA rank A conference)
- [36] \*K. Kang, **W. Ouyang**, H. Li, X. Wang. "Object Detection from Video Tubelets with Convolutional Neural Networks". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016. (ERA rank A conference)

- [37] \*W. Yang, **W. Ouyang**, H. Li, X. Wang. "End-to-End Learning of Deformable Mixture of Parts and Deep Convolutional Neural Networks for Human Pose Estimation". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016 (**Oral**). (ERA rank A conference)
- [38] \*X. Chu, **W. Ouyang**, H. Li, and X. Wang. "Structured feature learning for pose estimation". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016. (ERA rank A conference)
- [39] \*L. Wang, **W. Ouyang**, X. Wang, and H. Lu. "STCT: Sequentially training convolutional networks for visual tracking". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2016. (ERA rank A conference)
- [40] **Wanli Ouyang**, Hongyang Li, Xingyu Zeng, Xiaogang Wang, "Learning Deep Representation with Large-scale Attributes", In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, 2015. (ERA rank A conference)
- [41] \*Xiao Chu, \*Wei Yang, **Wanli Ouyang**, Xiao gang Wang, "Multi-task Recurrent Neural Network for Immediacy Prediction", In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, 2015 (**Oral**). (ERA rank A conference)
- [42] \*Lijun Wang, **Wanli Ouyang**, Xiaogang Wang, Huchuan Lu, "Visual Tracking with Fully Convolutional Networks", In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, 2015. (ERA rank A conference)
- [43] **Wanli Ouyang**, Xiaogang Wang, Xingyu Zeng, Shi Qiu, Ping Luo, Yonglong Tian, Hongsheng Li, Shuo Yang, Zhe Wang, Chen-Change Loy and Xiaoou Tang, "DeepID-Net: Deformable Deep Convolutional Neural Networks for Object Detection", In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2015. (ERA rank A conference)
- [44] \*Rui Zhao, **Wanli Ouyang**, Hongsheng Li, and Xiaogang Wang, "Saliency Detection by Multi-context Deep Learning", In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, 2015. (ERA rank A conference)
- [45] \*Xingyu Zeng, **W. Ouyang**, and X. Wang, "Deep Learning of Scene-specific Classifier for Pedestrian Detection," In *Proc. European. Conf. Computer Vision (ECCV)*, Sept. 2014. (ERA rank A conference)
- [46] \*Zhao, Rui, **Wanli Ouyang**, and Xiaogang Wang. "Learning mid-level filters for person re-identification." In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Columbus, USA, Jun. 2014. (ERA rank A conference)
- [47] **W. Ouyang**, X. Chu, and X. Wang, "Multi-source Deep Learning for Human Pose Estimation," In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Columbus, USA, Jun. 2014. (ERA rank A conference)
- [48] **W. Ouyang**, and X. Wang, "Joint Deep Learning for Pedestrian Detection," In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, Sydney, Australia, Dec. 2013. (ERA rank A conference)
- [49] \*X. Zeng, **W. Ouyang**, and X. Wang, "Multi-Stage Contextual Deep Learning for Pedestrian Detection," In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, Sydney, Australia, Dec. 2013. (ERA rank A conference)
- [50] \*Rui Zhao, **W. Ouyang**, and X. Wang, "Person Re-identification by Saliency Matching," In *Proc. IEEE Int. Conf. Computer vision (ICCV)*, Sydney, Australia, Dec. 2013. (ERA rank A conference)

- [51] **W. Ouyang**, X. Zeng, and X. Wang, "Modeling Mutual Visibility Relationship in Pedestrian Detection," In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Portland, USA, Jun. 2013. (ERA rank A conference)
- [52] **W. Ouyang**, and X. Wang, "Single-Pedestrian Detection aided by Multi-pedestrian Detection," In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Portland, USA, Jun. 2013. (ERA rank A conference)
- [53] \*Rui Zhao, **W. Ouyang**, and X. Wang, "Unsupervised Saliency Learning for Person Re-identification," In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Portland, USA, Jun. 2013. (ERA rank A conference)
- [54] **W. Ouyang**, and X. Wang, "A Discriminative Deep Model for Pedestrian Detection with Occlusion Handling," In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, Rhode Island, USA, Jun. 2012. (ERA rank A conference)
- [55] **W. Ouyang**, R. Zhang and W.-K. Cham, "Fast pattern matching using orthogonal Haar transform". In *Proc. IEEE Int. Conf. Computer vision and pattern recognition (CVPR)*, San Francisco, USA, Jun. 2010. (ERA rank A conference)

OTHER  
CONFERENCE  
PUBLICATIONS

- [56] Xiao, R., Xiao, C., **Ouyang, W.**, and Cham, W. K. (2010, December). "Fast pattern matching using Black Sheep algorithm". In *Intelligent Signal Processing and Communication Systems (ISPACS), 2010 International Symposium on* (pp. 1-4). *IEEE*.
- [57] R. Zhang, **W. Ouyang** and W.-K. Cham, "Image Deblocking using Dual Adaptive FIR Wiener Filter in the DCT Transform Domain," In *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2009*, Taiwan, Apr. 19-24, 2009, pp.1181-1184.
- [58] R. Zhang, **W. Ouyang** and W.-K. Cham, "Image Multi-scale Edge Detection using 3-D Hidden Markov Model based on the Non-decimated Wavelet," In *Proc. 2009 IEEE International Conference on Image Processing (ICIP)*, Cairo, Egypt, Nov. 7-10, 2009, pp.2173-2176.
- [59] **W. Ouyang**, D. Song, C. Xiao and W. Ju. *The matrix decomposition representation of DCT algorithms*. In IEEE Midwest sym. Circuits and Syst. (MWCAS), 2005.
- [60] **W. Ouyang**, C. Xiao, W. Ju and D. Song. *The dynamic range acquisition of DCT and IDCT algorithms*. In IEEE Midwest sym. Circuits and Syst. (MWCAS), 2005.
- [61] **W. Ouyang**, C. Xiao, W. Ju and D. Song. *Practical fast asymmetric DCT algorithm based on SIMD and VLIW*. In IEEE Int. Sym. Intelligent Signal Process., 2005.
- [62] Wang, J. F., Choy, C. S., Chao, T. L., Kit, K. C., Pun, K. P., **Ouyang, W. L.**, Wang, X. G. (2014, November). Simplifying HOG arithmetic for speedy hardware realization. In *Circuits and Systems (APCCAS), 2014 IEEE Asia Pacific Conference on* (pp. 61-64). *IEEE*.

## AWARDS

- Rank as #1 in the ILSVRC2016 for object detection from still image and object detection/tracking from video, 2016.
- Rank as #1 in the ILSVRC2015 for object detection from video, 2015.
- Rank as #2 in the ILSVRC2015 for object detection from still images, 2015.
- Rank as #2 in the ILSVRC2014 for object detection from still images, 2014.
- Outstanding reviewer award, ICCV 2015.
- IEEE CVPR Doctoral Consortium grant, 2010
- First-class tutor award, the Chinese University of Hong Kong, 2009
- Best presentation award in the 3rd Beijing Hong Kong International Forum, 2008
- Excellent Master Thesis, Beijing University of technology, 2006
- First class Science and Technology award, Beijing University of technology, 2006
- Excellent graduate student scholarship for two years, 2004, 2005
- National scholarship of China, 2000
- Excellent undergraduate student scholarship for three successive years, 1999-2002

## RESEARCH ACTIVITIES

- Program Chair of Asian Conference on Computer Vision (ACCV) Workshop on Deep Learning on Visual Data, 2014
- Program Chair of The 21st International Conference on Neural Information Processing 2014, workshop on Deep Learning in Image Understanding
- Organizing chair of the 5th BJ-HK International Doctoral Forum 2010
- Track chair of the 4th BJ-HK International Doctoral Forum 2009
- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Tutorial at the Asian Conference on Computer Vision (ACCV) 2016
- Tutorial at the IEEE Conference on Multimedia and Expo (ICME) 2014
- Reviewer of the following journals and conferences
  - IEEE Transactions on Pattern Analysis and Machine Intelligence
  - International Journal of Computer Vision
  - IEEE Transactions on Image Processing
  - IEEE Transactions on Signal Processing
  - IEEE Transactions on Intelligent Transportation Systems
  - IEEE Transactions on Multimedia
  - IEEE Transactions on Circuits and Systems I
  - IEEE Transactions on Circuits and Systems for Video Technology
  - IEEE Transactions on Neural Networks and Learning Systems
  - IEEE Transactions on Systems, Man, and Cybernetics
  - IEEE Transactions on Knowledge and Data Engineering
  - IEEE Signal Processing Magazine
  - Pattern Recognition
  - Pattern Recognition Letters
  - Neurocomputing
  - Signal Processing: Image Communication
  - Journal of Visual Communication and Image Representation
  - Journal of Electronic Imaging
  - Journal of Image and Vision Computing



- IET Computer Vision
- Sensors
- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2012
- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2013
- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2014
- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2015
- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2016
- IEEE International Conference on Computer Vision (ICCV) 2011
- European Conference on Computer Vision (ECCV) 2012
- IEEE International Conference on Computer Vision (ICCV) 2013
- European Conference on Computer Vision (ECCV) 2014
- IEEE International Conference on Computer Vision (ICCV) 2015
- IEEE International Conference on Computer Vision (ICCV) 2017
- International Conference on Signal Processing and Multimedia Applications 2010
- International Conference on Image and Signal Processing 2005

TEACHING  
EXPERIENCE

**The Chinese University of Hong Kong, Hong Kong, China**

*Teacher*

**2015-2016**

- **Digital image processing** for undergraduate students. Mean score of 5.58/6, ranking as better than 89% courses in the department

*Teaching assistant*

**2007-2009**

- Random Process and Digital Signal Processing
  - Sept. - Dec., 2007/2008/2009
  - Responsible for 1 hour lecture each week and evaluation of assignments, projects and tests
  - Maintain a course web page archived at <http://www.ee.cuhk.edu.hk/~wlouyang/ele3410/index.html>
- Advanced Digital Signal Processing and Applications
  - Jan. - May. 2008
  - Advanced Digital Signal Processing and Applications
  - Responsible for 1 hour lecture each week and evaluation of assignments, projects and tests
- Signals and systems
  - Jan. - May. 2009/2010
  - Responsible for 1 hour lecture each week and evaluation of assignments, projects and tests
  - Maintain a course web page archived at <http://www.ee.cuhk.edu.hk/~wlouyang/ele3410/index.html>

HOBBIES

Soccer (joined the football match in the university).