



# Xiang Wang

*Tsinghua University*

## Education

- 2018.01–2018.06 **Visiting Student**, *University of California, Merced, CA, U.S.*  
Supervised by Prof. Ming-Hsuan Yang
- 2014.08–present **Ph.D. Candidate**, *Tsinghua University, Beijing, China.*  
Supervised by Prof. Huimin Ma
- 2010.08–2014.07 **B.Eng.**, *Tsinghua University, Beijing, China.*  
GPA: 89.5/100  
Outstanding Graduates, Tsinghua University, 2014 (Top 10%)

## Research Interests

**Computer Vision: Semantic Segmentation, Salient Object Detection.**

## Publications

- [1] **Xiang Wang**, Huimin Ma, Shaodi You, Deep Clustering for Weakly-Supervised Semantic Segmentation in Autonomous Driving Scenes, *submitted to ECCV 2018*.
- [2] **Xiang Wang**, Shaodi You, Xi Li, Huimin Ma, Weakly-Supervised Semantic Segmentation by Iteratively Mining Common Object Features, *CVPR 2018*.
- [3] **Xiang Wang**, Huimin Ma, Xiaozhi Chen, Shaodi You, Edge Preserving and Multi-Scale Contextual Neural Network for Salient Object Detection, *IEEE TIP 2018 (IF=4.8)*.
- [4] **Xiang Wang**, Huimin Ma, Xiaozhi Chen, Salient Object Detection via fast R-CNN and Low-level Cues, *ICIP 2016 (oral presentation)*.
- [5] **Xiang Wang**, Huimin Ma, Xiaozhi Chen, Geodesic Weighted Bayesian Model for Saliency Optimization, *Pattern Recognition Letters 2016 (IF=2.0)*.
- [6] **Xiang Wang**, Huimin Ma, Xiaozhi Chen, Geodesic Weighted Bayesian Model for Salient Object Detection, *ICIP 2015 (oral presentation)*.
- [7] Xi Li, Huimin Ma, **Xiang Wang**. Feature Proposal Model on Multidimensional Data Clustering and Its Application, *Pattern Recognition Letters 2018 (IF=2.0)*.
- [8] Xi Li, Huimin Ma, **Xiang Wang**. Region Proposal Ranking via Fusion Feature for Object Detection, *ICIP 2018*.
- [9] Chao Le, Huimin Ma, **Xiang Wang**, Xi Li. Key Parts Context and Scene Geometry in Human Head Detection, *ICIP 2018*.
- [10] Xi Li, Huimin Ma, **Xiang Wang**, Kai Zhang. Saliency Detection via Alternative Optimization Adaptive Influence Matrix Model, *Pattern Recognition Letters 2018*.

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📄 [wangxiang10.github.io](https://github.com/wangxiang10)

- [11] Xi Li, Huimin Ma, **Xiang Wang**, Xiaoqin Zhang, Traffic Light Recognition for Complex Scene with Fusion Detections, *IEEE Transactions on Intelligent Transportation Systems 2018* (IF=3.7).
- [12] Xiaozhi Chen, Huimin Ma, Chenzuo Zhu, **Xiang Wang**, Zhichen Zhao, Boundary-aware Box Refinement for Object Proposal Generation, *Neurocomputing 2017* (IF=3.3).
- [13] Xiaozhi Chen, Huimin Ma, **Xiang Wang**, Zhichen Zhao, Improving Object Proposals with Multi-Thresholding Straddling Expansion, *CVPR 2015*.

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## Research Projects

### **Weakly-Supervised Semantic Segmentation by Iteratively Mining Common Object Features.**

- Mining common object features from coarse object seeds
- Iteratively mining features and training network to progressively improve performance
- Published on *CVPR 2018*.

### **Edge Preserving and Multi-Scale Contextual Neural Network for Salient Object Detection.**

- Propose a novel edge preserving and multi-scale contextual network for saliency detection
- The proposed framework achieves both a clear boundary and multi-scale contextual robustness simultaneously for the first time
- Published on *ICIP 2016* and *IEEE TIP 2018*.

### **Geodesic weighted Bayesian Model for Saliency Optimization.**

- Propose an unified geodesic weighted Bayesian framework for salient object detection
- Considering spatial relationship to better represent the compactness of objects
- Published on *ICIP 2015* and *Pattern Recognition Letters 2016*.

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## Reviewer

IEEE TIP, Multimedia Tools and Applications

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## Awards and Grants

- Outstanding Graduates (Top 10%), Tsinghua University, 2014
- National Encouragement Scholarship, Ministry of Education, China, 2012 & 2013
- Scholarship for Overseas Graduate Studies, Tsinghua University, 2017
- Scholarship of Academic Excellence, 2011 & 2015 & 2016 & 2017
- Excellent League Member, Tsinghua University, 2012
- Scholarship of Social Work, Tsinghua University, 2013
- Excellent Student Cadre, Tsinghua University, 2013
- Outstanding Volunteer, Tsinghua University, 2013
- Dengfeng Travel Grant, Tsinghua University, 2015 & 2016
- IEEE SPS Travel Grant, 2016

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## Professional Skills

C/C++, Java, Matlab, Python, Caffe, PyTorch, etc.

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