

# Yu Xiang

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## RESEARCH INTERESTS

Computer Vision    Object Recognition and Tracking, Scene Understanding, Image and Video Retrieval  
Machine Learning    Graphical Model, Energy-based Learning, Deep Learning

## EDUCATION

- 2010.9-2015.12    **Ph.D. in Computer Vision**, University of Michigan, Ann Arbor, MI, USA.  
- Dissertation: 3D Object Representations for Recognition  
- Advisor: Prof. Silvio Savarese
- 2007.9-2010.7    **M.Sc. in Computer Science**, Fudan University, Shanghai, China.  
- Dissertation: Graphic Models for Semantic Context Modeling in Automatic Image Annotation  
- Advisor: Prof. Xiangdong Zhou
- 2003.9-2007.7    **B.Sc. in Computer Science**, Fudan University, Shanghai, China.

## EXPERIENCE

- 2016.2 – present    **Postdoctoral Researcher**, Stanford University, Palo Alto, CA, USA.  
- Advisor: Prof. Silvio Savarese
- 2013.9 – 2015.12    **Visiting Student**, Stanford University, Palo Alto, CA, USA.  
- Advisor: Prof. Silvio Savarese
- 2014.5 – 2014.8    **Summer Intern**, NEC Labs America, Cupertino, CA, USA.  
2015.6 – 2015.9    - Department: Media Analytics
- 2009.9 – 2010.1    **Teaching Assistant**, The C Programming Language, Fudan University, Shanghai, China.  
- Instructor: Prof. Xiangdong Zhou
- 2009.7 – 2009.9    **Junior Research Assistant**, National University of Singapore, Singapore.  
- Advisor: Prof. Tat-Seng Chua

## AWARDS

- 2012    Outstanding Master's Thesis Award of Shanghai

## PUBLICATIONS

- Conference    Hyun Oh Song, **Yu Xiang**, Stefanie Jegelka and Silvio Savarese. Deep Metric Learning via Lifted Structured Feature Embedding. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016 (**Spotlight Oral Presentation**).
- Conference    **Yu Xiang**, Alexandre Alahi and Silvio Savarese. Learning to Track: Online Multi-Object Tracking by Decision Making. In *International Conference on Computer Vision (ICCV)*, pp. 4705-4713, 2015 (**Oral Presentation**).
- Conference    **Yu Xiang**, Wongun Choi, Yuanqing Lin and Silvio Savarese. Data-Driven 3D Voxel Patterns for Object Category Recognition. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1903-1911, 2015 (**Oral Presentation**).

- Conference Roozbeh Mottaghi, **Yu Xiang** and Silvio Savarese. A Coarse-to-Fine Model for 3D Pose Estimation and Sub-category Recognition. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 418-426, 2015.
- Conference **Yu Xiang\***, Changkyu Song\*, Roozbeh Mottaghi and Silvio Savarese (\*equal contribution). Monocular Multiview Object Tracking with 3D Aspect Parts. In *European Conference on Computer Vision (ECCV)*, pp. 220-235, 2014.
- Conference **Yu Xiang**, Roozbeh Mottaghi and Silvio Savarese. Beyond PASCAL: A Benchmark for 3D Object Detection in the Wild. In *IEEE Winter Conference on Applications of Computer Vision (WACV)*, pp. 75-82, 2014.
- Conference **Yu Xiang** and Silvio Savarese. Object Detection by 3D Aspectlets and Occlusion Reasoning. In *the 4th International IEEE Workshop on 3D Representation and Recognition (3dRR)*, pp. 530-537, 2013.
- Conference Sid Yingze Bao, **Yu Xiang** and Silvio Savarese. Object co-detection. In *Proceedings of European Conference on Computer Vision (ECCV)*, vol. 7572, pp. 86-101, 2012.
- Conference **Yu Xiang** and Silvio Savarese. Estimating the aspect layout of object categories. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 3410-3417, 2012.
- Conference **Yu Xiang**, Xiangdong Zhou, Zuotao Liu, Tat-Seng Chua and Chong-Wah Ngo. Semantic Context Modeling with Maximal Margin Conditional Random Fields for Automatic Image Annotation. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 3368-3375, 2010.
- Conference Zuotao Liu, Xiangdong Zhou, **Yu Xiang** and Yan-Tao Zheng. Learning contextual metrics for automatic image annotation. In *Advances in Multimedia Information Processing - PCM*, vol. 6297, pp. 124-135, 2010.
- Journal Hongtao Xu, Xiangdong Zhou, **Yu Xiang** and Baile Shi. Adaptive model for web image semantic automatic annotation. In *Journal of Software* (in Chinese), vol. 21, no. 9, pp. 2183-2195, 2010.
- Conference **Yu Xiang**, Xiangdong Zhou, Tat-Seng Chua and Chong-Wah Ngo. A Revisit of Generative Model for Automatic Image Annotation using Markov Random Fields. In *Proceedings of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1153-1160, 2009.
- Conference Hongtao Xu, Xiangdong Zhou, Mei Wang, **Yu Xiang** and Baile Shi. Exploring Flickr's related tags for semantic annotation of web images. In *Proceedings of the ACM International Conference on Image and Video Retrieval (CIVR)*, no. 46, 2009.
- Conference Hongtao Xu, Xiangdong Zhou, Lan Lin, **Yu Xiang** and Baile Shi. Automatic web image annotation via web-scale image semantic space learning. In *Advances in Data and Web Management*, vol. 5446, pp. 211-222, 2009.

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## PERSONAL SKILLS

- Language Chinese, English
- Programming C/C++, MATLAB, Python, CUDA, JAVA

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## PROFESSIONAL ACTIVITIES

- Commu. Chair International Conference on 3D Vision, 2016
- Prog. Chair 5th Workshop on 3D Representation and Recognition, 2015
- Prog. Committee 4th Workshop on 3D Representation and Recognition, 2013
- Journal Reviewer IEEE Transactions on Pattern Analysis and Machine Intelligence
- Journal Reviewer International Journal of Computer Vision
- Journal Reviewer Computer Vision and Image Understanding
- Journal Reviewer IEEE Transactions on Circuits and Systems for Video Technology
- Conf. Reviewer IEEE Conference on Computer Vision and Pattern Recognition

Conf. Reviewer International Conference on Computer Vision  
Conf. Reviewer European Conference on Computer Vision  
Conf. Reviewer Asian Conference on Computer Vision