

# Yanwei Fu <sup>1</sup>

---

Assistant Professor of Fudan University

Mobile: +86-18621372733

Email: yanweifu@fudan.edu.cn

y.fu@qmul.ac.uk

## EDUCATION

*I am currently an ARC DECRA Fellow with the School of Computer Science and Technology, UTS, Australia.*

*Ph.D. in Computer Science, Computer Vision* 09/2011 – 11/2014  
Queen Mary University of London,  
Supervisors: Prof. *Tao Xiang* and Prof. *Shaogang Gong*.

*M.S. Computer Science,* 09/2008 – 06/2011  
Department of Computer Science and Technology, Nanjing University,  
Supervisor: Prof. *Yanwen Guo*.

## ACADEMIC POSITIONS

*Assistant Professor at the School of Data Science (SDS),*  
*Fudan University, China* 07/2016 – NOW  
*Collaborators: Prof. Jianqing Fan, Prof. Xiangyang Xue, Prof. Yu-gang Jiang*

*Post-doctoral Researcher at Disney Research Pittsburgh,*  
*Re-located in Carnegie Mellon University (CMU)* 12/2014 – 07/2016  
*Collaborator: Dr. Leonid Sigal.*

## PUBLICATIONS

1. *Heterogeneous Knowledge Transfer in Video Emotion Recognition, Attribution and Summarization*, Baohan Xu, **Yanwei Fu\***, Yu-Gang Jiang, Boyang Li and Leonid Sigal *IEEE Transactions on Affective Computing to Appear.* \*, Corresponding authour.
2. *Deep Learning for Video Classification and Captioning*, Zuxuan Wu, Ting Yao, **Yanwei Fu** and Yu-Gang Jiang *ACM Book on Frontiers of Multimedia Research 2016*
3. *Harnessing Object and Scene Semantics for Large-Scale Video Understanding*. ZuXuan Wu, **Yanwei Fu**, Yu-gang Jiang, Leonid Sigal (**Spotlight**) *CVPR 2016*.
4. *Semi-supervised Vocabulary-informed Learning*. **Yanwei Fu** and Leonid Sigal, *CVPR 2016. (Oral)*
5. *Video Emotion Recognition with Transferred Deep Feature Encodings*, Baohan Xu, **Yanwei Fu**, Yu-Gang Jiang, Boyang Li and Leonid Sigal *ICMR 2016 (Oral)* (accept rate=18%)
6. *Robust Subjective Visual Property Prediction from Crowdsourced Pairwise Labels*. **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang, Jiechao Xiong, Shaogang Gong, Yizhou Wang and Yuan Yao *IEEE Transaction on Pattern Analysis and Machine Intelligence (TPAMI), March 2016, impact factor: 6.077*.
7. *Learning to Generate Posters of Scientific Papers*, Yu-ting Qiang, **Yanwei Fu**, Yanwen Guo, Zhi-hua Zhou and Leonid Sigal. *AAAI 2016*.

---

<sup>1</sup><http://yanweifu.github.io/>

8. *Transductive Multi-view Zero-Shot Learning*. **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong *IEEE Transaction on Pattern Analysis and Machine Intelligence (TPAMI) 2015 Nov*, **impact factor: 6.077**.
9. *Learning from Synthetic Data Using a Stacked Multichannel Autoencoder*, Xi Zhang, **Yanwei Fu**, Shanshan Jiang, Leonid Sigal and Gady Agam, *ICMLA 2015*.
10. *Learning Multi-modal Latent Attributes*, **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong. *IEEE Transaction on Pattern Analysis and Machine Intelligence (TPAMI), 2014*. **impact factor: 6.077**.
11. *Interestingness Prediction by Robust Learning to Rank*. **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong and Yuan Yao. *European Conference on Computer Vision - ECCV 2014*.
12. *Transductive Multi-view Embedding for Zero-Shot Recognition and Annotation*. **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong *European Conference on Computer Vision - ECCV 2014*.
13. *Transductive Multi-classes and Multi-label Zero-shot Learning* **Yanwei Fu**, Yongxin Yang, Timothy M. Hospedales, Tao Xiang and Shaogang Gong. *European Conference on Computer Vision - ECCV 2014 workshop on Parts and Attribute*.
14. *Transductive Multi-label Zero-shot Learning*. **Yanwei Fu**, Yongxin Yang, Timothy M. Hospedales, Tao Xiang and Shaogang Gong. *British Machine Vision Conference – BMVC 2014 (Oral)*.
15. *Attribute Learning for Understanding Unstructured Social Activity*, **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong. *European Conference on Computer Vision - ECCV 2012*.
16. *Content-sensitive collection snapping*, **Yanwei Fu**, Yanwen Guo *IEEE International Conference on Multimedia and Expo – ICME 2011*.
17. *Multi-view Video Summarization*, **Yanwei Fu**, Yanwen Guo, Yanshu Zhu, Feng Liu, Chuanming Song and Zhi-Hua Zhou, *IEEE Transactions on Multimedia (TMM)*, 2010.

## PRESS COVER

1. *Multi-view Video Summarization*, IEEE TMM 2010: This work is strongly recommended by the review journal of IEEE MMTC R-LETTER – IEEE MMTC R-LETTER(p13). IEEE MMTC R-LETTER is one of the two review journals in IEEE communication society. For more details, please watch the *Demo*.
2. *Harnessing Object and Scene Semantics for Large-Scale Video Understanding*. CVPR 2016. This work is reported by the article "Object and scene recognition software work together to understand video content", EurekaAlert! and AAAS, 23-Jun-2016.
3. *Semi-supervised Vocabulary-informed Learning*. CVPR 2016. This work is reported by the article "Computer vision system studies word use to recognize objects it has never seen before", EurekaAlert! and AAAS, 23-Jun-2016.

## TECHNICAL REPORTS

1. *Multi-view Metric Learning for Multi-view Video Summarization*, Linbo Wang, Xianyong Fang, Yanwen Guo, **Yanwei Fu**, 2016 International Conference on Cyberworlds , (EI)
2. *Queen Mary University of London TRECVID-2013 Multimedia Event Detection (MED) System Report*, **Yanwei Fu**, Timothy M. Hospedales, Tao Xiang and Shaogang Gong. *TRECVID MED 2013 workshop notebook paper*.

3. *Robust Classification by Pre-conditioned LASSO and Transductive Diffusion Component Analysis*, Yanwei Fu, Leonid Sigal ,

## ACADEMIC EXPERIENCE

2012.07 – 2012.08 *Visiting the school of EECS and Math, Peking University.*  
*Host: Prof. Yuan Yao and Prof. Yi-Zhou Wang.*

2013.07 – 2013.08 *IPAM Graduate Summer School: Computer Vision, UCLA.*  
*Host: Prof. Alan L. Yuille.*

2014.08 – 2014.09 *Autonomous learning summer school, Max Planck Institute for Mathematics in the Sciences, Leipzig Germany.*  
*Host: Prof. Nihat Ay, and Prof. Marc Toussaint.*

## SELECTED PROJECTS

I participated the following projects,

1. *International Exchanges Scheme with Peking University, China, funded by Royal Society UK. 2011 – 2013,*

This was a joint project collaborated with Prof. Yuan Yao from Peking University. It focused on visual abnormal behaviour, Hodgerank, and Robust learning to rank. I was in charge of this project. My work on this project had contributed to two of my publications – Robust Estimation of Subjective Visual Properties (TPAMI) and Interestingness Prediction by Robust Learning to Rank (ECCV 2014).

2. *Research on the Key Techniques of Video summarization, Natural Science Foundation of Jiangsu Province (BK2009081), 2009 – 2011,*

The project aimed at the study of video summarization of surveillance videos. I was the main contributor of this project. And my work on this project led to one of my publications – Multi-view Video Summarization, IEEE TMM2010. This paper was strongly recommended by the review journal – IEEE MMTC R-LETTER. I also had one technical report: Multi-view Metric Learning for Multi-view Video Summarization.

## HONOURS

1. *National Scholarship for Outstanding Self-Funded Foreign Students, 2014.*  
I'm one of the total 30 winners in UK.
2. *Fully funding College scholarship in Queen Mary University of London, 2011-2014*  
I am the only winner from EECS, Queen Mary.
3. *Best master thesis award of Jiangsu Province, 2012.*  
I am the only winner from compute science in Jiangsu Province, China.
4. *BEST THESIS AWARD of Computer Science Department in Nanjing University, 2011.*  
I am one of the three winners.
5. *Google Excellent Student Scholarship, 2011 (Top 1%).*
6. *Huawei Student Scholarship, 2010 (Top 1%).*
7. *“Innovtional and enterprising talents, 2014 KunShan City”.*  
*I am the youngest winner of this award since it is ever made.*

## **SUPERVISED STUDENTS**

*ZuXuan Wu*, an intern in Disney Research Pittsburgh (Sep. 2015 – Jan. 2016), Co-supervised with Prof. Leonid Sigal. We are working on a project of large-scale video action recognition by deep learning algorithms. Zuxuan Wu is a Third-year Master Student in CS department of Fudan University. We have one paper published in CVPR 2016.

*Baohan Xu*, a Master student in Compute Science Department, Fudan University (Nov. 2014 – Now), Co-supervised with Prof. Yu-Gang Jiang. We are working on an emotion recognition problem. We have one paper submitted to IEEE Transaction on Affective Computing; and one paper is published in ACM ICMR 2016.

*Yu-Ting Qiang*, a Master student in Compute Science Department, Nanjing University (May. 2015 – Now), Co-supervised with Prof. Yanwen Guo. We are working on automatically generating posters from scientific papers. We have one paper published in AAAI 2016.

## **TEACHING EXPERIENCES**

*2009.01 – 2009.06 Operating Systems, Nanjing University;*  
*2012.01 – 2012.06 TA for Fundamentals of Web Technology (DCS150), QMUL;*  
*2012.09 – 2012.12 TA for C++ for Image Processing (DCS339/AMCM053), QMUL;*  
*2013.01 – 2013.06 TA for Fundamentals of Web Technology (ECS417U), QMUL;*  
*2014.01 – 2014.06 TA for Fundamentals of Web Technology (ECS417U), QMUL;*

## **ACADEMIC SERVICES**

*IEEE STUDENT MEMBER*  
*The Journal Reviewer for*

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) (starting from 2015);
- IEEE Transactions on multimedia (TMM) (starting from 2011);
- IEEE transactions on human-machine systems (starting from 2012);
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT) (starting from 2013);
- Journal of Visual Communication and Image Representation (JVCI) (starting from 2015);
- IET Image Processing (starting from 2012);
- IET Computer Vision (starting from 2014);
- Neurocomputing (starting from 2012);
- Machine Vision and Applications (starting from 2015);
- Signal processing image communication (starting from 2015);
- Computer Vision and Image Understanding (CVIU) (starting from 2015);
- Advanced Robotics, the Journal of the Robotics Society of Japan (starting from 2014);

*The Journal Reviewer for*

- AAAI-17, AAAI-16
- NIPS-16
- CVPR, ICCV, ECCV

**PATENTS  
PENDING IN  
DISNEY**

*Yanwei Fu, Leonid Sigal, System and method of vocabulary-informed categorization of items of interest included within digital information, Walt-Disney Corp.*

*Yanwei Fu, Leonid Sigal, Robust Classification by Pre-conditioned LASSO , Walt-Disney Corp.*

*Zuxuan Wu, Yanwei Fu, Leonid Sigal, Systems and methods for identifying activities in media contents based on object data and scene data, Walt-Disney Corp.*