

# Xuanyi Dong

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## Education

**University of Technology Sydney** | Ph.D. in Computer Science  
Mar 2017 – now | NSW, Australia | Advisor : Prof. Yi Yang

**Beihang University** | B.S. in Computer Science  
Sep 2012 – Jul 2016 | Beijing, China

## Research and Industry Experience

**Facebook Reality Labs** | Research Intern | hosted by Dr. Shoou-I Yu  
May 2017 – Sep 2017 | Pittsburgh, PA

- Precise and Stable Facial Landmark Detection in High Resolution Videos.

**Qihoo 360** | Research Intern | hosted by Prof. Shuicheng Yan  
Feb 2016 – Oct 2016 | Beijing, P. R. China

- Deep CNN model acceleration (mainly focus on accelerating ResNet).
- Developed efficient object detection algorithms in the scenario of autonomous driving.

**SenseTime Group Limited** | Research Intern | hosted by Dr. Junjie Yan  
Sep 2015 – Jan 2016 | Beijing, P. R. China

- Large-scale general object detection. Won the 2nd/3rd place in ILSVRC2015 DET/LOC tasks as the core member in "CUimage" team.
- Face Detection SDK. I implement an online detection-tracking-verification framework for the surveillance system.

## Selected Conference Publications

### [1] Searching for A Robust Neural Architecture in Four GPU Hours

Xuanyi Dong, Yi Yang

Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019

### [2] Supervision-by-Registration: An Unsupervised Approach to Improve the Precision of Facial Landmark Detectors

Xuanyi Dong, Shoou-I Yu, Xinshuo Weng, Shih-En Wei, Yi Yang, Yaser Sheikh

Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018

### [3] Style Aggregated Network for Facial Landmark Detection

Xuanyi Dong, Yan Yan, Wanli Ouyang, Yi Yang

Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018

### [4] Exploit the Unknown Gradually: One-Shot Video-Based Person Re-Identification by Stepwise Learning

Yu Wu, Yutian Lin, Xuanyi Dong, Yan Yan, Wanli Ouyang, Yi Yang

Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018

### [5] Soft Filter Pruning for Accelerating Deep Convolutional Neural Networks

Yang He, Guoliang Kang, Xuanyi Dong, Yanwei Fu, Yi Yang

Proc. of the International Joint Conference on Artificial Intelligence (IJCAI), 2018

### [6] More is Less: A More Complicated Network with Less Inference Complexity

Xuanyi Dong, Junshi Huang, Yi Yang, Shuicheng Yan

Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017

### [7] Self-Paced Co-training

Fan Ma, Deyu Meng, Qi Xie, Zina Li, Xuanyi Dong

Proc. of the International Conference on Machine Learning (ICML), 2017

## Selected Journal Publications

### [1] Few-Example Object Detection with Model Communication

Xuanyi Dong, Liang Zheng, Fan Ma, Yi Yang, Deyu Meng

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2018

### [2] Late Fusion via Subspace Search with Consistency Preservation

Xuanyi Dong, Yan Yan, Mingkui Tan, Yi Yang, Ivor W. Tsang

IEEE Transactions on Image Processing (TIP), 2019

## AWARDS

### TREC Video Retrieval Evaluation , Oct 2016

1st Place in Video Localization Task. (See our report)

### Large Scale Visual Recognition Challenge , Dec 2015

3rd Place on Object Detection Task; 2nd Place on Object Localization Task

I was responsible for training Faster RCNN with different CNN backbones, building the multi-scale testing pipeline, and ensembling different detection models.

### ACM International Collegiate Programming Contest , Oct 2014 – Jul 2015

Gold  $\times$  2, Silver Medals

I was the team leader, responsible for assigning different problems to each teammate and coordinating the computer usage. Our team has 3 people with 1 computer to solve 10 problems in 5 hours.

## Academic Services

Journal Reviewer

- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- Transactions on Computational Biology and Bioinformatics (TCBB)
- Pattern Recognition (PR) [Outstanding Reviewer]

Conference Reviewer

- ACM Multimedia (ACM MM), 2017, 2018
- Computer Vision and Pattern Recognition (CVPR), 2019
- International Conference on Computer Vision (ICCV), 2019