

Mr. Yuanjun Xiong

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- CURRENT STATUS** I am currently a senior applied scientist in Amazon Rekognition. My research focuses on using machine learning methods to solve computer vision problems, especially human activity analysis.
- EDUCATION**
- PhD in Information Engineering* August 2012 - July 2016
Department of Information Engineering
The Chinese University of Hong Kong, Hong Kong
Research areas: machine learning, computer vision, deep learning.
Thesis: *Visual Understanding by Learning from Multiple Data Aspects*
- Bachelor of Engineering* August 2008 - July 2012
Department of Automation
Tsinghua University, Beijing, China, 2012
Thesis: *Dynamic 3D Human Face Aging Emulation*
- Bachelor of Economics, secondary degree* August 2009 - July 2012
School of Economics and Management
Tsinghua University, Beijing, China, 2012
- EXPERIENCE**
- Senior Applied Scientist* October 2017 - Present
Amazon Rekognition, Seattle, United States.
- Postdoctoral Fellow* August 2016 - September 2017
Department of Information Engineering, CUHK, Hong Kong
- PhD Student* Fall 2012 - July 2016
Department of Information Engineering, CUHK, Hong Kong
- Visiting Researcher* January 2015 - April 2015
Google Inc., Mountain View, CA, United States.
I worked in Project Abacus of Google ATAP leading its visual recognition team to build a continuous mobile user authentication system for android devices.
- PUBLICATIONS**
- Sijie Yan, **Yuanjun Xiong**, Dahua Lin. "Spatial Temporal Graph Convolutional Networks for Skeleton-Based Action Recognition," In *Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 2018.
- Yue Zhao, **Yuanjun Xiong**, Limin Wang, Zhirong Wu, Xiaoou Tang, Dahua Lin. "Temporal Action Detection with Structured Segment Networks," In *IEEE International Conference on Computer Vision (ICCV)*, 2017.
- Limin Wang, **Yuanjun Xiong**, Dahua Lin, Luc Van Gool. "UntrimmedNets for Weakly Supervised Action Recognition and Detection," In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017

Yue Zhao, Bowen Zhang, Zhirong Wu, Shuo Yang, Lei Zhou, Sijie Yan, Limin Wang, **Yuanjun Xiong**, Dahua Lin, Yu Qiao, Xiaoou Tang ‘CUHK & ETHZ & SIAT Submission to ActivityNet Challenge 2017,’ In *ActivityNet Challenge, CVPR*, 2017.

Shuo Yang, **Yuanjun Xiong**, Chen Change Loy, Xiaoou Tang. “Face Detection through Scale-Friendly Deep Convolutional Networks,” In *CoRR*, abs/1706.02863, 2017.

Yuanjun Xiong, Yue Zhao, Limin Wang, Dahua Lin, Xiaoou Tang. “A Pursuit of Temporal Accuracy in General Activity Detection,” In *CoRR*, abs/1703.02716, 2015.

Limin Wang, **Yuanjun Xiong**, Zhe Wang, Yu Qiao, Dahua Lin, Xiaoou Tang, Luc Van Gool. “Temporal Segment Networks: Towards Good Practices for Deep Action Recognition,” In *Europe Conference on Computer Vision (ECCV)*, 2016

Yuanjun Xiong, Kai Zhu, Dahua Lin, Xiaoou Tang. “Recognize Complex Events from Static Images by Fusing Deep Channels,” In *Computer Vision and Pattern Recognition (CVPR)*, 2015.

Limin Wang, **Yuanjun Xiong**, Zhe Wang, Yu Qiao. “Towards Good Practices for Very Deep Two-Stream ConvNets,” In *CoRR*, abs/1507.02159, 2015.

Yuanjun Xiong, Wei Liu, Deli Zhao, Xiaoou Tang. “Zeta Hull Pursuits: Learning Non-convex Data Hulls,” In *Advances in Neural Information Processing Systems (NIPS)*, 2014.

Yuanjun Xiong, Wei Liu, Deli Zhao, Xiaoou Tang. “Face Recognition via Archetype Hull Ranking,” In *IEEE International Conference on Computer Vision (ICCV)*, 2013.

Limin Wang, Sheng Guo, Weilin Huang, **Yuanjun Xiong**, Yu Qiao. “Knowledge Guided Disambiguation for Large-Scale Scene Classification with Multi-Resolution CNNs,” accepted to *IEEE Transaction on Image Processing (TIP)*, 2017.

Yuanjun Xiong, Limin Wang, Zhe Wang, Bowen Zhang, Hang Song, Wei Li, Dahua Lin, Yu Qiao, Luc Van Gool, Xiaoou Tang. “CUHK & ETHZ & SIAT Submission to ActivityNet Challenge 2016,” In *CoRR*, abs/ 1608.00797, 2016.

Limin Wang, **Yuanjun Xiong**, Zhe Wang, Yu Qiao. “CUHK & SIAT submission for THUMOS15 action recognition challenge,” In *THUMOS15 Action Recognition Challenge*, 2015.

Wanli Ouyang, Ping Luo, Xingyu Zeng, Shi Qiu, Yonglong Tian, Hongsheng Li, Shuo Yang, Zhe Wang, **Yuanjun Xiong**, Chen Qian, Zhenyao Zhu, Ruohui Wang, Chen Change Loy, Xiaogang Wang, Xiaoou Tang. “DeepID-Net: multi-stage and deformable deep convolutional neural networks for object detection,” In *CoRR*, abs/1409.3505, 2014.

PROFESSIONAL ACTIVITIES	Reviewer, Conference on Computer Vision and Pattern Recognition (CVPR).	2017
	Reviewer, Image and Vision Computing (IMAVIS).	2017
	Reviewer, AAAI Conference on Artificial Intelligence (AAAI).	2017
	Reviewer, IEEE Transactions on Information Forensics & Security (TIFS).	2017
	Reviewer, IET Computer Vision.	2017
	Reviewer, Selected Topics in Applied Earth Observations and Remote Sensing.	2017
	Reviewer, IEEE Transactions on Multimedia (TMM).	2017
	Reviewer, IEEE Transactions on Circuits and Systems for Video Technology.	2016

Reviewer, Computer Vision and Image Understanding (CVIU). 2016
Reviewer, IET Computer Vision. 2016
Reviewer, Machine Vision and Application (MVA). 2016
Reviewer, International Journal of Machine Learning and Cybernetics (IJMLC). 2014

HONORS & AWARDS

Runner-up, ActivityNet Large-Scale Activity Recognition Challenge June, 2017
Winner, ActivityNet Large-Scale Activity Recognition Challenge June, 2016
3rd-Place, ImageNet Large-Scale Visual Recognition Challenge September, 2016
5-th, THUMOS15 Untrimmed Video Action Recognition Challenge June, 2015
Runner-Up, ImageNet Large-Scale Visual Recognition Challenge August, 2014

Research Fellowship, Chinese University of Hong Kong September 2016
Hong Kong PhD Fellowship, The Research Grants Council 2012 - 2016
Gold Medal, ACM ICPC (Asia Regional), Beijing October 2011
Academic Excellence Scholarship, Tsinghua University September 2010
First Prize in Beijing College Physics Contest, Beijing March 2010
Huang Yicong Couple Scholarship (Top 5%), Tsinghua University September 2009

PROJECTS

ActivityNet Large Scale Activity Recognition Challenge 2017 Jul, 2017
Result site: <http://activity-net.org/challenges/2017/program.html>
I led the team of CUHKÐ&SIAT. We achieved 2nd places in all three participated tasks (untrimmed video classification, trimmed video classification, and temporal action detection) in the challenge.

ActivityNet Large Scale Activity Recognition Challenge 2016 Jul, 2016
Result site: <http://activity-net.org/challenges/2016/program.html>
I led the team of CUHKÐ&SIAT. We achieved a mean AP of 93.23% in recognizing 20000 untrimmed web videos, securing the first place in the challenge.

ImageNet Large-Scale Visual Recognition Challenge (ILSVRC) 2016 Sep, 2016
Our team won the 3rd place in the image classification and localization task. My software is recognized by two champion teams in other two tasks (object detection, video object detection).

Fast Parallel Caffe Jul, 2015
Website link: <https://github.com/yjxiong/caffe>
I implemented a modified Caffe toolbox enabling high efficiency parallel training for deep CNN models. It is used by multiple winning teams in ILSVRC 2014/2015/2016.

Web Image Dataset for Event Recognition (WIDER) Jun, 2015
Website link: http://personal.ie.cuhk.edu.hk/~xy012/event_recog/WIDER/
We built a large-scale dataset for researching event recognition in still images. I wrote the framework for data collection, annotation, and conducting baseline experiments.

THUMOS Challenge 2015 Jun, 2015
Result site: <http://www.thumos.info/results.html>
Our team (CUHK & SIAT) ranked 5-th in THUMOS15 untrimmed video action recognition challenge.

Mobile User Authentication Jul, 2015
I worked in Google ATAP as a visiting researcher leading the visual recognition team of Project Abacus. The project aims to build a continuous mobile user authentication system for android devices.

ImageNet Large-Scale Visual Recognition Challenge (ILSVRC) 2014 Aug, 2014
Result site: <http://www.image-net.org/challenges/LSVRC/2014/results>

Our team (CUHK DeepID-Net) won the runner-up position in the LSVRC 2014 object detection challenge. I led the development of our optimized training frameworks.

**COMPUTER
SKILLS**

Languages & Software: C/C++, CUDA, Python, MATLAB, PHP, Java, L^AT_EX.
Operating Systems: Linux, Windows.