

Gang YU, Research Leader, Tencent

CONTACT INFORMATION	Teng Yun Building, No. 397 Tian Lin Road Xu Hui District, Shanghai, PRC	Phone: +86 13621942896 Email: iskicy@gmail.com, Homepage: https://skicyyu.org/
EDUCATION	Nanyang Technological University , Singapore Ph.D. in Information Engineering, Advisor: Professor Junsong Yuan Shanghai Jiao Tong University , China M.S. in Computer Science, Advisor: Professor Hongtao Lu Shandong University , China B.S. in Applied Mathematics,	Aug 2010 to Jan 2014 Sep 2007 to Mar 2010 Sep 2003 to Jun 2007
PROFESSIONAL EXPERIENCE	Tencent, Shanghai Research Leader Megvii (Face++) , Beijing Research Scientist Leader for the Detection team Nanyang Technological University , Singapore Research Fellow Advisor: Professor Junsong Yuan Microsoft Research , Redmond, U.S. Research Intern Advisor: Dr. Zicheng Liu Nanyang Technological University , Singapore Project Officer Advisor: Professor Junsong Yuan	Dec 2019 to now Dec 2014 to Dec 2019 Feb 2014 to Nov 2014 May 2013 to Aug 2013 May 2010 to Aug 2010
BOOK PUBLICATIONS	1. Gang Yu , Junsong Yuan, and Zicheng Liu “Human Action Analysis with Randomized Trees”, <i>Springer</i> , 2015.	
CONFERENCE PUBLICATIONS	1. Lin Song, Yanwei Li, Zeming Li, Gang Yu , Hongbin Sun, Jian Sun, Nanning Zheng “Learnable Tree Filter for Structure-preserving Feature Transform.” (NIPS), 2019. 2. Zheng Qin, Zeming Li, Zhaoning Zhang, Yiping Bao, Gang Yu , Yuxing Peng, Jian Sun, “ThunderNet: Towards Real-time Generic Object Detection.” (ICCV), 2019. 3. Wenhai Wang, Enze Xie, Xiaoge Song, Yuhang Zang, Wenjia Wang, Tong Lu, Gang Yu, Chunhua Shen, “Efficient and Accurate Arbitrary-Shaped Text Detection with Pixel Aggregation Network.” (ICCV), 2019. 4. Shuai Shao, Zeming Li, Tianyuan Zhang, Chao Peng, Gang Yu , Jing Li, Xiangyu Zhang, Jian Sun, “Objects365: A Large-scale, High-quality Dataset for Object Detection.” (ICCV), 2019.	

5. Shiyi Lan, Ruichi Yu, **Gang Yu**, Larry Davis, “Modeling Local Geometric Structure of 3D Point Clouds using Geo-CNN.” (**CVPR**), 2019.
6. Lin Song, Shiwei Zhang, **Gang Yu**, Hongbin Sun, “TACNet: Transition-Aware Context Network for Spatio-Temporal Action Detection.” (**CVPR**), 2019.
7. Huanyu Liu, Chao Peng, Changqian Yu, Jingbo Wang, Xu Liu, **Gang Yu**, Wei Jiang, “An End-to-end Network for Panoptic Segmentation.” (**CVPR**), 2019.
8. Wenhai Wang, Xiang Li, Enze Xie, Wenbo Hou, Tong Lu, **Gang Yu**, Shuai Shao, “Shape Robust Text Detection with Progressive Scale Expansion Network.” (**CVPR**), 2019.
9. Enze Xie, Yuhang Zang, Shuai Shao, **Gang Yu**, Cong Yao Guangyao Li, “Scene Text Detection with Supervised Pyramid Context Network.” (**AAAI**), 2019.
10. Tao Hu, Pengwan Yang, Chiliang Zhang, **Gang Yu**, Yadong Mu Cees Snoek, “Attention-based Multi-Context Guiding for Few-Shot Semantic Segmentation.” (**AAAI**), 2019.
11. Zeming Li, Chao Peng, **Gang Yu**, Xiangyu Zhang, Yangdong Deng, Jian Sun, “DetNet: A Backbone network for Object Detection.” (**ECCV**), 2018.
12. Changqian Yu, Jingbo Wang, Chao Peng, Changxin Gao, **Gang Yu**, Nong Sang, “BiSeNet: Bilateral Segmentation Network for Real-time Semantic Segmentation.” (**ECCV**), 2018.
13. Ruochen Fan, Qibin Hou, Ming-ming Chen, **Gang Yu**, Ralph R. Martin, Shi-min Hu, “Associating Inter-Image Salient Instances for Weakly Supervised Semantic Segmentation .” (**ECCV**), 2018.
14. Chao Peng, Tete Xiao, Zeming Li, Yuning Jiang, Xiangyu Zhang, Kai Jia, **Gang Yu**, Jian Sun, “MegDet: A Large Mini-Batch Object Detector.” (**CVPR**), spotlight, 2018. **COCO2017 Detection Challenge winner**
15. Yilun Chen, Zhicheng Wang, Yuxiang Peng, Zhiqiang Zhang, **Gang Yu**, Jian Sun, “Cascaded Pyramid Network for Multi-Person Pose Estimation.” (**CVPR**), 2018. **COCO2017 Keypoint Challenge winner**
16. Changqian Yu, Jingbo Wang, Chao Peng, Changxin Gao, **Gang Yu**, Nong Sang, “Learning a Discriminative Feature Network for Semantic Segmentation.” (**CVPR**), 2018.
17. Zeming Li, Yilun Chen, **Gang Yu**, Xiangyu Zhang, Jian Sun , “R-FCN++: Towards Accurate Region-based Fully Convolutional Networks for Object Detection.” *Association for the Advancement of Artificial Intelligence (AAAI)*, 2018.
18. Chao Peng, Xiangyu Zhang, **Gang Yu**, Guiming Luo, Jian Sun, “Large Kernel Matters – Improve Semantic Segmentation by Global Convolutional Network.” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.
19. **Gang Yu**, Junsong Yuan, “Fast Action Proposals for Human Action Detection and Search.” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2015.
20. **Gang Yu**, Zicheng Liu, Junsong Yuan, “Discriminative Orderlet Mining For Real-time Recognition of Human-Object Interaction.” *Asian Conference on Computer Vision (ACCV)*, 2014.

21. **Gang Yu**, Junsong Yuan, “Scalable Forest Hashing for Fast Similarity Search.” *International Conference on Multimedia and Expo (ICME)*, 2014.
22. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Propagative Hough Voting for Human Activity Recognition.” *IEEE Conference on European Conference on Computer Vision (ECCV)*, 2012.
23. Yuning Jiang, **Gang Yu**, Junsong Yuan, “Randomized Spatial Partition for Scene Recognition.” *IEEE Conference on European Conference on Computer Vision (ECCV)*, 2012.
24. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Predicting Human Activities using Spatio-Temporal Structure of Interest Points.” *ACM Multimedia Conference (ACM MM)*, 2012.
25. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Unsupervised Random Forest Indexing for Fast Action Search.” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2011.
26. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Real-time Human Action Search using Random Forest based Hough Voting.” *ACM Multimedia Conference (ACM MM)*, 2011.
27. **Gang Yu**, Zhiwei Hu, and Hongtao Lu, “Robust Incremental Subspace Learning for Object Tracking.” *International Conference on Neural Information Processing*, 2009.
28. **Gang Yu**, and Hongtao Lu, “Illumination Invariant Object Tracking with Incremental Subspace Learning.” *IEEE International Conference on Image and Graphics*, 2009.

JOURNAL
PUBLICATIONS

1. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Propagative Hough Voting for Human Activity Detection and Recognition.” *IEEE Trans. on Circuits and Systems for Video Technology (T-CSVT)*, Vol.25, Issue 1, pp.87-98, 2014.
2. **Gang Yu**, Junsong Yuan, and Zicheng Liu, “Action Search by Example using Randomized Visual Vocabularies.” *IEEE Trans. on Image Processing (T-IP)*, Vol.22, Issue 1, pp. 377-390, 2013.
3. **Gang Yu**, Norberto A., Junsong Yuan, and Zicheng Liu, “Fast Action Detection via Discriminative Random Forest Voting and Top-K Subvolume Search.” *IEEE Trans. on Multimedia (T-MM)*, Vol.13, Issue 3, pp. 507-517, 2011.
4. **Gang Yu**, Zhiwei Hu, Hongtao Lu, and Wenbin Li, “Robust Object Tracking with Occlusion Handle.” *Neural Computing and Applications*, Vol.20, Issue. 7, pp. 1027-1034, 2011
5. **Gang Yu**, Xianpeng Wang, and Hongtao Lu, “Efficient Routing Strategy on Scale-free Networks.” *Modern Physics Letters B*, Vol. 23, No. 11, pp. 1377-1389, 2009
6. Xianpeng Wang, **Gang Yu**, and Hongtao Lu, “A Local Information-based Routing Strategy on the Scale-free Network.” *Modern Physics Letters B*, Vol. 23, No. 10, pp. 1291-1301, 2009

HONORS AND AWARDS

- WiderPedestrian Detection Winner, 2019
- WAD nuScenes 3D Detection and BDD100K D²-City Detection Domain Adaptation Winner, 2019
- COCO 2018 Detection, Panoptic Segmentation, Keypoint Challenge Winner, 2018
- Mapillary 2018 Panoptic Segmentation Challenge Winner, 2018
- WAD Video Object Instance Segmentation Challenge Winner, 2018
- ActivityNet AVA Spatial Temporal Localization Challenge Winner, 2018
- COCO 2017 Detection, Keypoint Challenge Winner, 2017
- Microsoft Research Asia Fellowship, 2011
- Research Scholarship from Nanyang Technological University, 2010 to 2014
- Outstanding Graduate student of Shanghai City, P.R.China, 2010
- Samsung Scholarship, Shanghai Jiao Tong University, 2008
- First Prize of learning scholarship from Shanghai Jiao Tong University, 2008

PRESENTATIONS

- Tutorial at International Conference on Multimedia and Expo, Shanghai, Jul 2019
Title: Object Detection in Recent Three Years
- Invited Talk at Beijing Institute of Technology, Beijing, May 2017
Title: Large Kernel for Image Segmentation and Object Detection
- Tutorial at Pacific Rim Conference on Multimedia, Singapore, Dec 2012
Title: Human action analysis with 2D and 3D sensors, with Junsong Yuan, Zicheng Liu
- Invited Talk at National University of Singapore, Singapore, Oct 2012
Title: Human Action Recognition and Localization by Randomized Trees
- Speaker at Graduate Students Workshop in IEEE CAS Singapore Chapter, Sep 2011
Title: Unsupervised Random Forest Indexing for Fast Action Search
(Best speaker award)

TEACHING EXPERIENCE

- Nanyang Technological University, Singapore
 - Lab* EE3072/EE2073/IM313 Game Programming, 2012-2013 Spring Semester
 - Tutorial* EE4758 Computer Security, 2012-2013 Fall Semester
 - Tutorial* EE4791 Database Systems, 2011-2012 Spring Semester
- Shanghai Jiao Tong University, China
 - Tutorial* Data Structure and Algorithms, 2007-2008 Fall Semester

ACADEMIC SERVICE

- Journal Reviewer:
 - International Journal of Computer Vision
 - IEEE Transactions on Image Processing
 - IEEE Transactions on Circuits and Systems for Video Technology
 - ACM Transactions on Multimedia Computing, Communications and Applications
 - Machine Vision and Applications, Springer
 - Multimedia System, Springer
- Conference Reviewer:
 - AAAI Conference on Artificial Intelligence, 2019
 - International Conference on Computer Vision, 2019
 - European Conference on Computer Vision, 2018
 - International Conference on Computer Vision and Pattern Recognition, 2017, 2018, 2019

Automatic Face and Gesture Recognition, 2018
International Conference on Multimedia and Expo, 2016, 2017
International Conference on Multimedia and Expo, 2016, 2017
Asian Conference on Computer Vision, 2014
Computer Graphics International Conference, 2013

Volunteer:

Student Volunteer for ICML 2011