

YUNHANG SHEN 沈云航

✉ shenyunhang01@gmail.com · ☎ (—) ——— · 🔗 <https://shenyunhang.github.io>

🎓 EDUCATION

<i>Ph.D of Computer Science and Technology</i>	2017.09 - 2021.06
Xiamen University (XMU), Fujian, China Advisor: Prof. Rongrong Ji	
<i>Master of Computer Technology</i>	2014.09 - 2017.06
Xiamen University (XMU), Fujian, China Advisor: Prof. Rongrong Ji	
<i>Bachelor of Intelligence Science and Technology</i>	2010.09 - 2014.06
Xiamen University (XMU), Fujian, China	

👤 RESEARCH EXPERIENCE

Tencent Youtu Lab. Shanghai, China	2021.07 - Present
<i>Senior Researcher</i>	
Tencent Youtu Lab. Shanghai, China	2018.09 - 2018.11
<i>Summer Intern</i>	
Worked on project: Person Re-identification.	
<ul style="list-style-type: none">• Proposed an end-to-end part power set model for person re-ID• Proposed a multi-scale features person re-ID• Write a paper accepted by IJCAI 2019	
Microsoft Research Asia. Beijing, China	2016.06 - 2017.06
<i>Internship</i> Advisor: Dr. Changhu Wang	
Worked on improve weakly supervised object detection.	
<ul style="list-style-type: none">• Improved weakly supervised object detection with category-specific pixel gradient map• Improved weakly supervised object detection with multi-center regularization• Write a paper accepted by TIP 2019	
Tencent Youtu Lab. Shanghai, China	2015.08 - 2015.09
<i>Summer Intern</i>	
Worked on project: Query-by-Singing/Humming(QBSH) for the QQ music system.	
<ul style="list-style-type: none">• Developed tools to visualize and analyse the query result• Optimized the Pyin feature 10% efficient• Achieved No.1 on the Music Information Retrieval Evaluation eXchange (MIREX), 2015	

PUBLICATION

- **Yunhang Shen**, Liujuan Cao*, Zhiwei Chen, Baochang Zhang, Chi Su, Yongjian Wu, Feiyue Huang, Rongrong Ji. Parallel Detection-and-Segmentation Learning for Weakly Supervised Instance Segmentation. Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), 2021.
- **Yunhang Shen**, Liujuan Cao*, Zhiwei Chen, Feihong Lian, Baochang Zhang, Chi Su, Yongjian Wu, Feiyue Huang, Rongrong Ji. Toward Joint Thing-and-Stuff Mining for Weakly Supervised Panoptic Segmentation. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021.
- **Yunhang Shen**, Rongrong Ji*, Zhiwei Chen, Yongjian Wu, Feiyue Huang. UWSOD: Toward Fully-Supervised-Level Capacity Weakly Supervised Object Detection. Conference on Neural Information Processing Systems (NeurIPS), 2020.
- **Yunhang Shen**, Rongrong Ji*, Yan Wang, Zhiwei Chen, Feng Zheng, Feiyue Huang, Yunsheng Wu. Enabling Deep Residual Networks for Weakly Supervised Object Detection. European Conference on Computer Vision (ECCV), 2020.
- **Yunhang Shen**, Rongrong Ji*, Zhiwei Chen, Xiaopeng Hong, Feng Zheng, Jianzhuang Liu, Mingliang Xu, Qi Tian. Noise-Aware Fully Webly Supervised Object Detection. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2020.
- **Yunhang Shen**, Rongrong Ji*, Kuiyuan Yang, Cheng Deng, Changhu Wang. Category-Aware Spatial Constraint for Weakly Supervised Detection. IEEE Transactions on Image Processing (TIP), 2019.
- **Yunhang Shen**, Rongrong Ji*, Xiaopeng Hong, Feng Zheng, Xiaowei Guo, Yongjian Wu, Feiyue Huang. A Part Power Set Model for Scale-Free Person Retrieval. International Joint Conference on Artificial Intelligence (IJCAI), 2019.
- **Yunhang Shen**, Rongrong Ji*, Yan Wang, Yongjian Wu and Liujuan Cao. Cyclic Guidance for Weakly Supervised Joint Detection and Segmentation. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2019.
- **Yunhang Shen**, Rongrong Ji*, Shengchuan Zhang, Wangmeng Zuo and Yan Wang. Generative Adversarial Learning Towards Fast Weakly Supervised Detection. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2018.
- **Yunhang Shen**, Rongrong Ji*, Changhu Wang, Xi Li and Xuelong Li. Weakly Supervised Object Detection via Object-Specific Pixel Gradient. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2018.
- Xianming Lin, **Yunhang Shen**, Ling Cai, and Rongrong Ji*. The Distributed System for Inverted Multi-index Visual Retrieval. Neurocomputing, 2016.
- **Yunhang Shen**, Rongrong Ji*, Donglin Cao, and Min Wang. Hacking Chinese Touclick CAPTCHA by Multi-Scale Corner Structure Model with Fast Pattern Matching. ACM International Conference on Multimedia (ACM MM), 2014.
- Fei Chao*, Fuhai Chen, **Yunhang Shen**, Wenli He, Yan Sun, Zhengshuai Wang, Changle Zhou, and Min Jiang. Robotic Free Writing of Chinese Characters via Human-Robot Interactions. International Journal of Humanoid Robotics, 2014.

PATENT

- Rongrong Ji, Xianming Lin, **Yunhang Shen**. 2020. Convolutional neural network model-based violence and terrorism video detection method. CN Patent CN106778590B.
- Rongrong Ji, **Yunhang Shen**. 2020. Weak supervision target detection method based on specific category

spatial constraint. CN Patent CN108062574B.

♡ HONOR AND AWARD

National Scholarship	2019
National Scholarship	2016
National Scholarship	2015
<i>1st Prize</i> and new records, Award on the Music Information Retrieval Evaluation eXchange	2015
National Endeavor Scholarship	2013
<i>1st Prize</i> , Award on the National Intelligent Design Competition	2013
National Endeavor Scholarship	2011