Yunhang Shen 沈云航

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🎓 Education

Ph.D candidate of Computer Science and Technology	2017.09 - Present

Xiamen University (XMU), Fujian, China
Advisor: Prof. Rongrong Ji

Master of Computer Technology	2014.09 - 2017.06

Xiamen University (XMU), Fujian, China
Advisor: Prof. Rongrong Ji

Bachelor of Intelligence Science and Technology	2010.09 - 2014.06

Xiamen University (XMU), Fujian, China

👥 Research Experience

Tencent Youtu Lab. Shanghai, China	2018.09 - 2018.11

Summer Intern

Worked on project: Person Re-identification.

- 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

Internship   Advisor: Dr. Changhu Wang

Worked on improve weakly supervised object detection.

- 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

Summer Intern

Worked on project: Query-by-Singing/Humming(QBSH) for the QQ music system.

- 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**, 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. In Proceedings of the 22Nd ACM InternationalConference on Multimedia (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
1st *Prize* and new records, Award on the Music Information Retrieval Evaluation eXchange	2015
National Endeavor Scholarship	2013
1st *Prize*, Award on the National Intelligent Design Competition	2013
National Endeavor Scholarship	2011