Xue Yang(杨学)

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Education

2012.09 ~ 2016.07 **Central South University, Hunan Bachelor:** Automation

 $2016.09 \sim 2019.07$ University of Chinese Academy of Sciences, Beijing Master: SIP Shanghai Jiao Tong University, Shanghai Ph.D.: CSE

2019.09 ~ Now MoE-AILab, SJTU Supervisor: Prof. Junchi Yan



Publications

Publication: 5 first/co-first papers (ICML, CVPR, ICCV, ECCV, AAAI). Citation: 662

Reviewer: CVPR, IJCV, TCSVT, TITS, GRSL

Google Scholar: https://scholar.google.com/citations?user=2xTlvV0AAAAJ&hl=zh-CN

Github: https://github.com/yangxue0827 **Top-Tier Computer Vision Papers:**

1. Rethinking Rotated Object Detection with Gaussian Wasserstein Distance Loss Xue Yang, Junchi Yan, Qi Ming, Wentao Wang, Xiaopeng Zhang, Qi Tian ICML 2021

2. Dense Label Encoding for Boundary Discontinuity Free Rotation Detection

Xue Yang, Liping Hou, Yue Zhou, Wentao Wang, Junchi Yan CVPR 2021

3. R³Det: Refined Single-Stage Detector with Feature Refinement for Rotating Object

Xue Yang, Junchi Yan, Ziming Feng, Tao He

AAAI 2021

4. Arbitrary-Oriented Object Detection with Circular Smooth Label

Xue Yang, Junchi Yan

ECCV 2020

5. SCRDet: Towards More Robust Detection for Small, Cluttered and Rotated Objects

Xue Yang, Jirui Yang, Junchi Yan, Yue Zhang, Tengfei Zhang, Zhi Guo, Sun Xian, Kun Fu **ICCV 2019**

6. Automatic Ship Detection in Remote Sensing Images from Google Earth of Complex Scenes Based on Multiscale Rotation Dense Feature Pyramid Networks

Xue Yang, Hao Sun, Kun Fu, Jirui Yang, Xian Sun, Menglong Yan, Zhi Guo

Remote Sensing, 2018 (ESI Highly Cited Papers)

7. Learning Modulated Loss for Rotated Object Detection

Wen Qian, Xue Yang, Silong Peng, Junchi Yan, Yue Guo

AAAI 2021

8. Rethinking Classification and Localization for Cascade R-CNN

Ang Li, Xue Yang, Chongyang Zhang **BMVC 2019**

Preprints:

1. On the Arbitrary-Oriented Object Detection: Classification based Approaches Revisited

Xue Yang, Junchi Yan, Tao He

2. SCRDet++: Detecting Small, Cluttered and Rotated Objects via Instance-Level Feature Denoising and **Rotation Loss Smoothing**

Xue Yang, Junchi Yan, Xiaokang Yang, Jin Tang, Wenlong Liao, Tao He

- 3. Optimization for Oriented Object Detection via Representation Invariance Loss
 - Qi Ming, Zhiqiang Zhou, Lingjuan Miao, Xue Yang, Yunpeng Dong
- 4. Parallel Multi-Resolution Fusion Network for Image Inpainting

WenTao Wang, Jianfu Zhang, Li Niu, Haoyu Ling, Xue Yang, Liqing Zhang

5. Towards High-Quality Oriented Object Detection with Fine-Grained Localization Guidance

Qi Ming, Zhiqiang Zhou, Lingjuan Miao, Yunpeng Dong, Xue Yang, YusenLin

Internship

2020.10 ~ 2021.07 Huawei Cloud BU, EI Innovation Lab, Shenzhen

Work with Prof. Qi Tian and Dr. Xiaopeng Zhang on rotated object detection, one paper is

accepted by ICML 2021.

2018.12 ~ 2019.07 Megvii (Face++), Detection Group, Beijing

Work with Dr. Gang Yu on detection algorithms.

2017.04 ~ 2017.06 Samsung Electronics Research Institute of China, Beijing



Awards and Honors

2019 ~ Now Wu Wen Jun Honorary Doctoral Scholarship

2019 1st Place in WAD2019 Challenge on the D²-City & BDD100K Detection Domain Adaption track

2019 **3**st/**4**th **Place** in DOAI2019 Challenge on the HBB/OBB track

2016-2019 Outstanding Student Leader, Outstanding Student, **Second Prize** in PMCM (2017)

2012-2016 Outstanding Student Leader, Outstanding Student, Outstanding Graduates, National Inspirational

Scholarship, Honorable Mention in MCM/ICM (2015), Second Prize in APMCM (2016)



Academic Projects

1. UranusDet: Rotation Detection Toolbox and Benchmark

Github (282 star): https://github.com/yangxue0827/RotationDetection

UranusDet is an open source rotation detection toolbox based on Tensorflow.

2. DetectionTeamUCAS

Github (2.3k star): https://github.com/DetectionTeamUCAS

It contains many general detection and rotation detection algorithms that reimplemented by myself.

3. R³Det: Refined Single-Stage Detector with Feature Refinement for Rotating Object

Github (572 star): https://github.com/Thinklab-SJTU/R3Det Tensorflow

https://github.com/SJTU-Thinklab-Det/r3det-on-mmdetection

A novel refined rotation detector accepted by AAAI 2021.