

# YANG CAO

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## EDUCATION

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<b>The Hong Kong University of Science and Technology</b> Computer Science; Supervisor: Prof. Dan Xu.	<i>2022.02 - present, PhD student</i>
<b>Nankai University</b> Computer Science; Supervisor: Prof. Ming-Ming Cheng.	<i>2017.09 - 2020.07, Master</i>
<b>Xidian University</b> Graduated as the outstanding graduate	<i>2013.09 - 2017.7, Bachelor</i>

## PUBLICATIONS

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(Google Scholar: <https://scholar.google.com/citations?user=VuKS1VQAAAAJ&hl=en>)

- CoDA: Collaborative Novel Box Discovery and Cross-modal Alignment for Open-vocabulary 3D Object Detection, **Yang Cao**, Yihan Zeng, Hang Xu, Dan Xu. *Advances in Neural Information Processing Systems(NeurIPS) 2023*.
- CoDAv2: Collaborative Novel Object Discovery and Box-Guided Cross-Modal Alignment for Open-Vocabulary 3D Object Detection, **Yang Cao**, Yihan Zeng, Hang Xu, Dan Xu. (under review)
- FakeMix Augmentation Improves Transparent Object Detection, **Yang Cao**, Zhengqiang Zhang, Enze Xie, Qibin Hou, Kai Zhao, Xiangui Luo, Jian Tuo. **Preprint**
- Contrast Prior and Fluid Pyramid Integration for RGBD Salient Object Detection, Jia-Xing Zhao, **Yang Cao**, Deng-Ping Fan, Ming-Ming Cheng, Xuan-Yi Li, Le Zhang. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019*. ( **Joint first author**)
- Traffic Scene Parsing through the TSP6K Dataset, Peng-Tao Jiang, Yuqi Yang, **Yang Cao**, Qibin Hou, Ming-Ming Cheng, Chunhua Shen. *IEEE International Conference on Computer Vision (CVPR), 2024*.
- Integral Object Mining via Online Attention Accumulation, Peng-Tao Jiang, Qi-Bin Hou, **Yang Cao**, Ming-Ming Cheng, Yun-Chao Wei, Hong-Kai Xiong. *IEEE International Conference on Computer Vision (ICCV), 2019*.
- EGNet: Edge Guidance Network for Salient Object Detection, Jia-Xing Zhao, Jiang-Jiang Liu, Deng-Ping Fan, **Yang Cao**, Ju-Feng Yang, Ming-Ming Cheng. *IEEE International Conference on Computer Vision (ICCV), 2019*.
- E-measure: Enhanced-alignment Measure for Binary Foreground Map Evaluation, Deng-Ping Fan, Cheng Gong, **Yang Cao**, Bo Ren, Ming-Ming Cheng, Ali Borji, **IJCAI**, 2018.

## RESEARCH/WORK EXPERIENCE

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**Huya Information Technology Co.,Ltd** *2020.07 - 2022.2, Multimedia Technology Engineer-AI*

- Research: Complete a paper for Transparent Object Detection task.
- Project: Image Super-Resolution. Develop SR models for popular game lives. Provide a live streaming experience in 4K resolution.
- Project: Model Compression. Compress the SR models to save half of cost.
- Project: The first SDR2HDR model for LOL game live, applied at the League of Legends 2021 World Championship. Over **4.5 million users** utilized my algorithm during the game finals.

**Megvii Institute (also known as Face++)** *2019.04 - 2019.07, Research intern*  
Keypoint-based object detection.

## HONOURS AND AWARDS

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**Huawei PhD Fellowship**, Huawei Noah's Ark Lab

**National scholarship, National encouragement scholarship**, Ministry of Education of the People's Republic of China(**top 1%**)

**The best freshman award, The S-level award**, Huya Information Technology(**top 5%**)

**Freshman Scholarship, Gongneng first-class scholarship**, Nankai University

**The first prize in the 14th Xidian Huawei Cup ACM/ICPC competition**, Huawei Technology

**The first prize of the 6th national college students mathematics preliminary competition**, Chinese Mathematical Society(**top 5%**)

**Excellent student, Excellent graduate**, Xidian University(**top 5%**)

## **ACADEMIC SERVICE**

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Programme Committee for AAAI.

Reviewer for TPAMI, TIP, CVPR(2020-2024), ICCV 2023, ECCV 2024, ICRA(2023-2024), NeurIPS 2023, ICLR 2024, ICML 2024, MM 2024

## **TEACHING**

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Advanced Artificial Intelligence, Teaching Assistant - Fall 2023

Computer Vision, Teaching Assistant - Spring 2023