

Mingfei Han *Ph.D. Candidate*

<https://scholar.google.com/citations?user=wJEoIXsAAAAJ&hl=en>

Email: hmf282@gmail.com

Research Interests

- My research interests lie in computer vision and machine learning. Currently, I am working on object and event prediction with NLP guidance in both videos and images, like Referring-VOS, video grounding and text-driven zero-shot object detection. Previously, I worked on individual and group activity recognition, as well as video object detection with both full and limited supervision. During my Master's thesis, I worked on moving object detection and tracking.

Education

Ph.D. 2023-202n University of Technology Sydney, Sydney, NSW, Australia

- Major: Computer Science
- Advisor: Prof. Xiaojun Chang

2021-2023 Monash University, Melbourne, VIC, Australia

- Major: Computer Science
- Advisor: Prof. Xiaojun Chang

M.Eng. 2016-2019 Chinese Academy of Sciences, Beijing, China

- Major: Computer Technology
- Thesis: Research on Object Detection and Tracking using Satellite Videos

B.Eng. 2012-2016 Nankai University, Tianjin, China

- Major: Computer Science
- Ranking: 11/79

Publications

- [1]. Dual-AI: Dual-path Actor Interaction Learning for Group Activity Recognition, *CVPR 2022*

Mingfei Han, David Junhao Zhang, Yali Wang, Rui Yan, Lina Yao, Xiaojun Chang and Yu Qiao

- [2]. Progressive Frame-Proposal Mining for Weakly Supervised Video Object Detection, *In submission to T-IP*

Mingfei Han, Yali Wang, Mingjie Li, Xiaojun Chang, Yi Yang and Yu Qiao

- [3]. Mining Inter-Video Proposal Relations for Video Object Detection, *ECCV 2020*

Mingfei Han, Yali Wang, Xiaojun Chang and Yu Qiao

- [4]. Object Tracking in Satellite Videos by Improved Correlation Filters with Motion Estimations, *IEEE Transactions on Geoscience and Remote Sensing* 2019
Shiyu Xuan, Shengyang Li, **Mingfei Han**, et al.

Research Experience

- 2022.4 – ongoing ReLER Lab, AAIL, University of Technology Sydney
- Advised by Prof. Xiaojun Chang
 - Working on individual and group activity recognition in videos, video dense prediction and its variant with NLP guidance. (CVPR 2022)
- 2021.2 – 2022.4 Monash University
- Advised by Prof. Xiaojun Chang
- 2019.10 – 2021.1 MMLab, SIAT, Chinese Academy of Sciences
- Advised by A/Prof. Yali Wang and Prof. Yu Qiao
 - Worked on action recognition/object detection in videos, and its variants under limited supervision. (ECCV 2020, CVPR 2022 and one in submission)
- 2017.7 – 2019.7 CSU, Chinese Academy of Sciences
- Advised by Prof. Shengyang Li
 - Worked on moving objects detection and tracking in satellite videos. (Trans. on GRS in 2019 and conference papers)

Honours & Awards

- **First Prize** in the TRECVID 2019 competition: Activities in Extended Video (2019)
- **First Prize** in the "Vehicle Tracking of Satellite Videos" competition organized by NSFC (National Natural Science Foundation of China) (2018)
- CSU Excellent Master Scholarship (2018, top 3%)
- **Graduate with Honour** of Nankai University (2016, top 3%)
- National Encouragement Scholarship (2014/2015)