

## Mingfei Han *Ph.D. Candidate*

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

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## Research Interests

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- My research interests lie in computer vision and machine learning. Currently, I am focusing on large vision-language models, along with their downstream tasks related to object and event prediction in videos, like Referring-VOS and video grounding. Previously, I worked on individual and group activity recognition, and video object detection with full supervision and limited supervision. During my Master's thesis, I worked on moving object detection and tracking.

## Education

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**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

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- [1]. HTML: Hybrid Temporal-scale Multimodal Learning Framework for Referring Video Object Segmentation, *ICCV 2023*

**Mingfei Han**, Yali Wang, Zhihui Li, Lina Yao, Xiaojun Chang and Yu Qiao

- [2]. 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

- [3]. An Efficient Spatio-Temporal Pyramid Transformer for Action Detection, *ECCV 2022*

Yuetian Weng, Zizheng Pan, **Mingfei Han**, Xiaojun Chang, Bohan Zhuang

- [4]. 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
- [5]. Mining Inter-Video Proposal Relations for Video Object Detection, *ECCV 2020*  
**Mingfei Han**, Yali Wang, Xiaojun Chang and Yu Qiao
- [6]. 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

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- 2023.4 – ongoing                      ReLER Lab, AAIL, University of Technology Sydney
- Advised by Prof. Xiaojun Chang
  - Working on individual and group activity recognition in videos, dense prediction in videos and its variant with NLP guidance. (CVPR 2022, ICCV 2023)
- 2021.2 – 2023.4                      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

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- Data61 PhD Scholarship (**full** scholarship, 2021)
- **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)