Jiawei He

Institute of Automation, Chinese Academy of Sciences

⚲ BEIJING, CHINA

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EDUCATION

2019 –	**Institute of Automation, Chinese Academy of Sciences (CASIA)** *Ph.D. Student in Pattern Recognition, supervised by Prof. Zhaoxiang Zhang*
2015 – 2019	**Xi'an Jiaotong University (XJTU)** *B.E. in Automation*

RESEARCH INTERESTS

I am interested in computer vision, deep learning, learning-based combinatorial optimization, video analysis, multiple object tracking, 3D perception and reconstruction, etc.

PUBLICATIONS

Conference papers

CVPR 2023	**Jiawei He**, Yuntao Chen, Naiyan Wang, Zhaoxiang Zhang. "3D Video Object Detection with Learnable Object-Centric Global Optimization"
ECCV 2022	Yingyan Li, Yuntao Chen, **Jiawei He**, Zhaoxiang Zhang. "Densely Constrained Depth Estimator for Monocular 3D Object Detection"
CVPR 2021	**Jiawei He**, Zehao Huang, Naiyan Wang, Zhaoxiang Zhang. "Learnable Graph Matching: Incorporating Graph Partitioning with Deep Feature Learning for Multiple Object Tracking"
IV 2019	Zhixiong Nan, Yang Feng, **Jiawei He**, Ping Wei, Linhai Xu, Hongbin Sun, Nanning Zheng. "Scene-Guided Region Proposal Re-ranking Method for On-road Vehicle Candidate Generation"

Preprints

arXiv:2306.05418	**Jiawei He**, Yuqi Wang, Yuntao Chen, Zhaoxiang Zhang. "2D Supervised Monocular 3D Object Detection by Global-to-Local 3D Reconstruction"
arXiv:2306.05416	**Jiawei He**, Lue Fan, Yuqi Wang, Yuntao Chen, Zehao Huang, Naiyan Wang, Zhaoxiang Zhang. "Tracking Objects with 3D Representation from Videos"
arXiv:2303.15414 (TPAMI Major Revision)	**Jiawei He**, Zehao Huang, Naiyan Wang, Zhaoxiang Zhang. "Learnable Graph Matching: A Practical Paradigm for Data Association"

RESAERCH EXPERIENCES

2019 –	**CRIPAC, CASIA** Ph.D. Student, supervised by Zhaoxiang Zhang Focus on: Object representation based on image sequences
2020 – 2022	**Tusimple** Perception research intern, mentored by Zehao Huang and Naiyan Wang Research topics: 2D/3D Multiple Object Tracking, Camera-based 3D Object Detection
2018 – 2019	**IAIR, XJTU** X-Plan project for undergraduate students Research topics: Object Detection, Semantic Segmentation

PROFESSIONAL SERVICES

Reviewer	ICLR, CVPR, ECCV, ICCV, TIP, TNNLS, Information Fusion, TCSVT