Zhongyang Ren

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EDUCATION

Northwestern Polytechnical University   Supervisor: Prof. Yuchao Dai
Ph.D, Neuromorphic Vision   *Sep. 2025 – Present*

Hunan University   Supervisor: Prof. Yi Zhou
Master, Neuromorphic Vision   *Sep. 2022 – Jun. 2025*

Shandong Normal University
Bachelor, Computer Science and Technology   *Sep. 2018 – Jun. 2022*

Research interests: 3D Vision, Event Camera, Robotics.

PUBLICATIONS

* denotes equal contribution, # denotes corresponding author

Zhongyang Ren[*], Bangyan Liao[*], Delei Kong, Jinghang Li, Peidong Liu, Laurent Kneip, Guillermo Gallego, Yi Zhou[#]. **Motion and Structure from Event-based Normal Flow**. In Proceedings of the European Conference on Computer Vision (**ECCV** 2024).

Sheng Zhong[*], **Zhongyang Ren**[*], Xiya Zhu, Dehao Yuan, Fermuller Cornelia, Yi Zhou[#].**Real-Time Motion Segmentation with Event-based Normal Flow**. IEEE International Conference on Robotics and Automation (**ICRA** 2026)

Yuting He[*], Bin Fan[*], **Zhongyang Ren**, Qi Liu, Yuchao Dai[#].**Learning Spatio-Temporal Dynamic Event Voxels for Robust Event-based Object Tracking**. (Under Review)

EXPERIENCE

Research on Event-based Motion Segmentation   Nov. 2024 – Aug. 2025
Project Leader   *Advised by Prof. Yi Zhou and Cornelia Fermuller*

Teaching Assistant   Sep. 2024 – Dec. 2024
RO10005: Robotics Engineering Advanced Practice   *Assist Prof. Yi Zhou*

Research on Geometric Model Fitting on Event Data   Mar. 2023 – Jul. 2024
Project Leader   *Advised by Prof. Yi Zhou, Guillermo Gallego and Laurent Kneip*

Research on Hyperspectral Image Super-Resolution   Dec. 2021 – May 2022
Undergraduate Thesis

AWARDS

• Excellent Student Scholarship(First Class), Hunan University

• National Second Prize in National Undergraduate Mathematical Contest in Modeling

• Provincial First Prize in Lanqiao Cup Programming Contest

• Excellent Student, Shandong Normal University

SERVICES

Reviewer of ECCV, CVPR and IEEE RA-L

Volunteer of IROS 2025 at Hangzhou

TECHNICAL SKILLS

Programming Languages: MATLAB, C++, Python, Java

Libraries & Tools: PyTorch, NumPy, OpenCV, Git, Docker, ROS, LaTeX