

Ziyao WANG (王子尧)

(+86) 18160566839 | ziyaoawang2@link.cuhk.edu.cn | Shenzhen, China

EDUCATION

The Chinese University of Hong Kong, Shenzhen

Shenzhen, China

Doctoral Degree

Sep 2024-Present

Computer and Information Engineering, School of Science and Engineering

Xidian University

Xi'an, China

Master's Degree

Sep 2021-Jun 2024

Software Engineering, School of Computer Science and Technology

Bachelor's Degree

Sep 2017-Jun 2021

Computer Science and Technology, School of Computer Science and Technology

PUBLICATIONS

Conference Papers:

- [C4] **Ziyao Wang**, Maonan Wang, Yucheng He, et al. Interpretation-Oriented Cloud Removal via Observation-Anchored Residual Flow with Geo-Contextual Alignment. ECCV 2026.
- [C3] Hongyang Zhang, Maonan Wang, **Ziyao Wang**, et al. InfoGeo: Information-Theoretic Object-Centric Learning for Cross-View Generalizable UAV Geo-Localization. ICML 2026.
- [C2] Ziyi Wang, Xianping Ma, **Ziyao Wang**, et al. MPerS: Dynamic MLLM MixExperts Perception-Guided Remote Sensing Scene Segmentation. CVPR Findings 2026.
- [C1] Yin Hu, **Ziyao Wang**, Xianping Ma, et al. MVMamba: A Multi-view Mamba with Tree Scanning Strategy for Remote Sensing Semantic Segmentation Task. IGARSS 2025.

Journal Articles:

- [J9] **Ziyao Wang**, Ziyi Wang, Hongyang Zhang, et al. CoMA: Collaborative Manifold Alignment for Joint Cloud Removal and Remote Sensing Interpretation. ISPRS Journal of Photogrammetry and Remote Sensing. (under review)
- [J8] **Ziyao Wang**, Yin Hu, Xiaokang Zhang, et al. Kolmogorov-Arnold Network for Remote Sensing Image Semantic Segmentation. IEEE Transactions on Geoscience and Remote Sensing. (major revision)
- [J7] **Ziyao Wang**, Chengxuan Pei, Xianping Ma, Man-On Pun. Zero-Shot Domain Adaptation for Remote Sensing Image Classification with Vision-Language Models. Neurocomputing (2025): 132470.
- [J6] **Ziyao Wang**, Xianping Ma, Man-On Pun. Downstream Task-Aided Cloud Removal for Ultra-High-Resolution Remote Sensing Images: An Information Loss Perspective. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2025.
- [J5] Xiangzeng Liu, Jinting Wan, Lijun Qu, **Ziyao Wang**, et al. MCANet: Hybrid multi-scale network for deformable brain medical image registration. Biomedical Signal Processing and Control, 2026, 112: 108418.
- [J4] Xiangzeng Liu, **Ziyao Wang**, Yue Wu, Qiguang Miao. SeGCN: A Semantic-Aware Graph Convolutional Network for UAV Geo-Localization. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2024, 17: 6055-6066.
- [J3] Xiangzeng Liu, **Ziyao Wang**, Haojie Gao, et al. HATF: Multi-Modal Feature Learning for Infrared and Visible Image Fusion via Hybrid Attention Transformer. Remote Sensing, 2024, 16(5): 803.
- [J2] Xiangzeng Liu, Rutao Li, **Ziyao Wang**, et al. ESAFormer: Multi-resolution Fusion Network for Pansharpening. APSIPA Transactions on Signal and Information Processing, 2024, 13(3).
- [J1] Xiangzeng Liu, **Ziyao Wang**, Jinting Wan, et al. RoadFormer: Road Extraction Using a Swin Transformer Combined with a Spatial and Channel Separable Convolution. Remote Sensing. 2023, 15(4), 1049.

Software Copyright:

Lane Detection and Warning System Software Based on Social Vehicle On-board Monitoring System. Registration No. 2022SR0485015

Invention Patent:

Obstacle Avoidance Method for Unmanned Aerial Vehicle Monocular Camera. Application No. 202210969855X

PROJECT EXPERIENCE

Mobile Platform User Satisfaction Analysis

May 2023-Jul 2023

Collaboration Project with China Mobile Beijing Branch, Director: Prof. Xiangzeng Liu

- Participated in building a user satisfaction analysis framework for mobile platform user experience evaluation, modeling large-scale user ratings and behavioral features to characterize satisfaction distributions and trends.
- Designed and optimized machine-learning-based satisfaction prediction models, identifying key drivers of user ratings through feature selection, feature interaction design, and model interpretability analysis.
- Synthesized statistical analysis and model results into user-experience improvement directions, supporting business-side satisfaction enhancement and service optimization.

Cross-camera Pedestrian Tracking

Sep 2021-Jun 2022

AI+ Education Centre of Xidian University, Director: Prof. Xiangzeng Liu

- Investigated pedestrian continuity tracking in multi-camera scenarios, reviewing mainstream object detection, target tracking, and cross-camera association methods and evaluating their applicability in real video scenes.
- Participated in building a cross-camera pedestrian tracking pipeline covering video-stream object detection, trajectory generation, and cross-camera identity association.
- Promoted systematic integration of the algorithm to support real-time pedestrian tracking and result visualization, providing a technical foundation for spatial behavior analysis in smart education scenarios.

Alarm Event Identification and Early Warning Technology and System via On-board Monitoring Information from Social Vehicles

May 2021-Jun 2022

National Key R&D Program Project: Key Technologies and Devices for Intelligent Monitoring and Early Warning of Social Security Events, Director: Prof. Qiguang Miao

- Participated in designing vehicle-state analysis and lane-departure warning algorithm modules for abnormal driving and alarm-event identification in social-vehicle on-board videos.
- Combined deep-learning perception results with vehicle trajectory constraints to build lane-departure risk judgment logic, improving the reliability and interpretability of warnings in complex road environments.
- Contributed to engineering integration of the alarm-event identification system, enabling structured management and coordinated reporting of warning results, key evidence, and event information.
- The related work resulted in one software copyright.

Research on Monocular UAV Collision Avoidance

Nov 2021-Apr 2022

BDIVs Lab Project, Director: Prof. Xiangzeng Liu

- Studied monocular vision imaging models and spatial distance estimation methods for lightweight UAV collision avoidance, exploring a low-cost solution without binocular cameras or LiDAR.
- Proposed an obstacle distance estimation approach based on visual feature matching, and designed collision-avoidance judgment strategies using UAV motion states for real-time obstacle perception and risk warning.
- Participated in engineering deployment and validation of the algorithm on embedded UAV platforms, supporting real-time collision avoidance in practical flight scenarios.
- The algorithm has been deployed by a company in Guangdong and resulted in one national invention patent.

AWARDS

Second Prize, CUHK-Shenzhen SSE Doctoral Research and AI Innovation Conference	Aug 2025
Shenzhen Universiade Study Abroad Fund Scholarship	Jul 2025
Second Prize Tencent Kaiwu Global AI Competition, Intelligent Traffic Signal Scheduling Track	Nov 2024
Graduate Second-Class Scholarship	Dec 2022
Graduate First-Class Scholarship	Dec 2021
Undergraduate Third-Class Scholarship (2 times)	Dec 2018, Dec 2019

OTHER EXPERIENCE

Director of Publicity Department, University Art Troupe, Xidian University	Sep 2018-Sep 2019
Participant, Artificial Intelligence Training at Columbia University (US)	Aug 2018
Member, Student Union, School of Computer Science and Technology	Sep 2017-Jun 2018