Jiancheng Pan

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EDUCATION

M.E.   College of Computer Science and Technology, Zhejiang University of Technology, 2022-2025
         Institute of Computer Vision, Supervised by Prof. Cong Bai

B.E.   College of Computer Information Engineering, Jiangxi Normal University, 2018-2022
         MoTong-AI Studio, Supervised by Prof. Aiwen Jiang

RESEARCH EXPERIENCES

2025–   INSAIT, Sofia University "St. Kliment Ohridski"
            Visiting Researcher, Supervised by Prof. Luc Van Gool and Dr. Danda Paudel

2023-2025   AI4Earth Laboratory, Department of Earth System Science, Tsinghua University
            Visiting Research Student, Supervised by Prof. Xiaomeng Huang

2024   Platform Facilities Research Department, Shanghai AI Laboratory
            Intern, Supervised by Dr. Lei Cui

RESEARCH AREAS

My research interests include Multimodal Learning, Data-centric AI, Foundation Model, Multi-modal LLMs, and their application on Earth Observation [GeoAI]. I am also dedicated to tackling challenges in Earth sciences through machine learning, with an emphasis on advancing sustainable development [ML4Sustain].

SELECTED PUBLICATIONS

* indicates equal contribution, † indicates corresponding author

2025   Yanxing Liu, **Jiancheng Pan**, Jianwei Yang, Tiancheng Chen, Peiling Zhou, Bingchen Zhang[†]. Diverse Instance Generation via Diffusion Models for Enhanced Few-Shot Object Detection in Remote Sensing Images. *IEEE Geoscience and Remote Sensing Letters, (IEEE GRSL, IF=4.4))*.

2025   JYuze Sun, Wentao Luo, Yanfei Xiang, **Jiancheng Pan**, Jiahao Li, Quan Zhang, Xiaomeng Huang[†]. Deploying Atmospheric and Oceanic AI Models on Chinese Hardware and Framework: Migration Strategies, Performance Optimization and Analysis. *Proceedings of the AAAI Conference on Artificial Intelligence, (AAAI)*.

2025   Jiaohao Li, **Jiancheng Pan**, Yuze Sun, Xiaomeng Huang[†]. Semantic-Aware Ship Detection with Vision-Language Integration. *The International Geoscience and Remote Sensing Symposium, (IGARSS)*.

2025   Yanxing Liu **Jiancheng Pan**, Bingchen Zhang[†]. Control Copy-Paste: Controllable Diffusion-Based Augmentation Method for Remote Sensing Few-Shot Object Detection. *The International Geoscience and Remote Sensing Symposium, (IGARSS)*.

2025 **Jiancheng Pan**, Yanxing Liu, Xiao He, Long Peng, Jiahao Li, Yuze Sun, Xiaomeng Huang[†]. Enhance Then Search: An Augmentation-Search Strategy with Foundation Models for Cross-Domain Few-Shot Object Detection. *IEEE/CVF Conference on Computer Vision and Pattern Workshops, (CVPRW)*.

2025 **Jiancheng Pan**, Yanxing Liu*, Yuqian Fu[†], Muyuan Ma, Jiaohao Li, Danda Pani Paudel, Luc Van Gool, Xiaomeng Huang[†]. Locate Anything on Earth: Advancing Open-Vocabulary Object Detection for Remote Sensing Community. *AAAI Conference on Artificial Intelligence, (AAAI)*, (AGU24, Oral)

2024 Qing Ma, **Jiancheng Pan**, Cong Bai[†]. Direction-Oriented Visual-semantic Embedding Model for Remote Sensing Image-text Retrieval. *IEEE Transactions on Geoscience and Remote Sensing*, (IF=7.5).

2023 **Jiancheng Pan**, Qing Ma, Cong Bai[†]. A Prior Instruction Representation Framework for Remote Sensing Image-text Retrieval. *ACM International Conference on Multimedia*, (ACMMM, Oral).

2023 **Jiancheng Pan**, Qing Ma[†], Cong Bai. Reducing Semantic Confusion: Scene-aware Aggregation Network for Remote Sensing Cross-modal Retrieval. *ACM International Conference on Multimedia Retrieval*, (ICMR, Oral).

HONORS AND AWARDS

2025 Graduate Academic Star of ZJUT (Top 10 Students)

2025 Outstanding Graduate (Zhejiang, China)

2025 INSAIT Graduate Research Fellowship (Sofia, Bulgaria)

2025 Runner-up in the NTIRE 2025 CD-FSOD Challenge (CVPRW 2025)

2024 National Scholarship (Top 1.05%)

2023 National Scholarship (Top 0.2%)

2023 ICMR Travel Award (Thessaloniki, Greece)

2023 Second Prize for China Postgraduate Mathematical Contest in Modelling (Top 13.36%)