



EDUCATION

- Wuhan University** | State Key Lab. LIESMARS Wuhan, China
M.Sc. in Cartography and Geographic Information Systems 2023.09 - 2026.06
- GPA: 3.55/4.00, Average Score: 89.40/100, IELTS: 7.0(6.0)
 - Research area: Computer Vision and 3D Reconstruction | Supervisor: Prof. Xianwei Zheng
- Wuhan University** | School of Remote Sensing and Information Engineering Wuhan, China
B.Eng. in Remote Sensing Science and Technology 2019.09 - 2023.06
- GPA: 3.75/4.00, Average Score: 88.90/100

PUBLICATIONS

- Xu Pan**, Zhenglin Wan, Xingrui Yu, Xianwei Zheng, Youkai Ke, Ming Sun, Rui Wang, Ziwei Wang, Ivor Tsang. **SA-VLA: Spatially-Aware Reinforcement Learning for Flow-Matching Vision-Language-Action Models**. (*Under Review at ICML*), 2026. Available at arXiv.
- Xu Pan**, Zimin Xia, Xianwei Zheng. **Scale-aware Co-visible Region Detection for Image Matching**. *ISPRS Journal of Photogrammetry and Remote Sensing (JCR Q1, IF 12.2)*, 2025. <https://doi.org/10.1016/j.isprsjprs.2025.08.015>
- Ming Sun, Rui Wang, Xingrui Yu, Lihua Jing, Hangyu Du, Zhenglin Wan, **Xu Pan**, Ivor Tsang. **SleeperVLA: Towards Backdoor-Based Ownership Verification for Vision-Language-Action Models**. (*Under Review at ICML*), 2026.
- Xu Pan**, Qiyuan Ma, Jintao Zhang, He Chen, Xianwei Zheng. **SAMatcher: Co-Visibility Modeling with Segment Anything for Robust Feature Matching**. *IEEE Transactions on Geoscience and Remote Sensing (Under Review)*, 2026.

PROJECTS

- Intelligent Interpretation Platform for Remote Sensing Images Based on Baidu PaddlePaddle** 2022.03 - 2022.08
 TwSphinx54/I2RSI
- Web-based Global Natural Disaster Assessment System** 2022.05 - 2022.09
 TwSphinx54/GNDAS

EXPERIENCES

- Research Assistant @ A*STAR** | Centre for Frontier AI Research (CFAR) | Singapore 2025.08 - present
- Pioneered spatially-aware reinforcement learning adaptation for flow-based VLA models, preserving implicit spatial inductive bias through fused geometric prior and preventing degradation under distribution shifts.
 - Designed geometry-aligned dense rewards and spatially-conditioned exploration, enabling stable RL fine-tuning, superior zero-shot spatial generalization, and robust transferable behaviors in complex manipulation scenes.
- Research Intern @ Baidu, Inc.** | International Technology R&D Dept. | Shenzhen, China 2024.12 - 2025.03
- Developed DiT-based framework for controllable, arbitrarily long video generation via key-frame conditioning.
 - Improved the visual fidelity of rendered text in image generation by designing specialized attention mechanisms.
 - Contributed to the **SynClub** AI chat app through assessment of frontier multimodal generative models and optimization of text-to-image/video modules, delivering improved performance and higher-quality outputs.

ACADEMIC ACTIVITIES

2025 Annual Conference on Photogrammetry and Remote Sensing, Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC) | Kunming, China 2025.07.28 - 07.30

AWARDS AND HONORS

- **Outstanding Graduate Student**, Wuhan University 2025.11
- **Graduate Academic Excellence Scholarship**, Wuhan University 2025.11
- **Graduate Academic Excellence Scholarship**, Wuhan University 2024.11
- **Outstanding Student Leader**, Wuhan University 2024.10
- **Outstanding Student Club Leader**, Wuhan University 2024.08
- **Active Contributor to Social Activities**, School of Remote Sensing and Information Engineering 2023.05
- **Wuhan University Class C Scholarship**, Wuhan University 2022.10
- **National Second Prize**, China Software Cup College Student Software Design Competition 2022.08
- **Honorable Mention**, Mathematical Contest In Modeling 2022.03
- **Third Prize**, Asia and Pacific Mathematical Contest in Modeling 2021.12
- **First Prize in Hubei Division**, China Undergraduate Mathematical Contest in Modeling 2021.10
- **Outstanding Student**, Wuhan University 2021.09
- **Bronze Medal**, China Collegiate Algorithm Design & Programming Challenge Contest 2021.03
- **Second Prize in Final**, Translation & Interpreting Contest of Hubei Province 2020.05

SKILLS

Languages: Mandarin, English (IELTS 7.0)

Programming: Python, C++, MATLAB, HTML, CSS, JavaScript, C#, SQL, R

Soft Skills: Leadership, Project Management, Event Organization, Public Speaking, Design & Editing

CERTIFICATES

System Integration Project Management Engineer

Qualification Certificate of Computer and Software Technology Proficiency

Certificate of Level 4 in Network Engineer

National Computer Rank Examination

Certificate of Level 3 in Network Technology

National Computer Rank Examination

Certificate of Level 3 in Database Technology

National Computer Rank Examination

SERVICE AND LEADERSHIP

- | | |
|------------------|---|
| Reviewer | International Conference on Machine Learning (ICML'26) |
| Member | ISPRS Student Consortium (ISPRS SC) |
| Chairman | The 22nd LIESMARS Graduate Student Union |
| Director | GeoScience Café Operation Center |
| Volunteer | 2023/2024 International Graduate Workshop on Geo-Informatics
The 21st China Ocean Color Conference |