Xu Pan M.Sc.

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EDUCATION

State Key Lab. LIESMARS, Wuhan University 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

School of Remote Sensing and Information Engineering, Wuhan University 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

1. **Xu Pan**, Zimin Xia, Xianwei Zheng. **Scale-aware Co-visible Region Detection for Image Matching.** *ISPRS Journal of Photogrammetry and Remote Sensing (JCR Q1 2/98, IF12.2)*, 2025. `https://doi.org/10.1016/j.isprsjprs.2025.08.015`

2. **Xu Pan**, Qiyuan Ma, Jintao Zhang, Xianwei Zheng. **SAMatcher: Co-Visibility Modeling with Segment Anything for Robust Feature Matching**. *IEEE Transactions on Geoscience and Remote Sensing (In Preparation)*, 2026.

3. **Xu Pan**, Zhenglin Wan, Xingrui Yu. **Spatially-Aware Reinforcement Learning for Flow-Matching Vision-Language-Action Models.** *(In Preparation)*, 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`

INTERNSHIPS

A*STAR - Centre for Frontier AI Research (CFAR) | Singapore 2025.08 - present
- Pioneered a spatial prior for flow-based VLA models for complex environments, implicit spatial awareness that enhances cross-modal grounding and improves spatial reasoning over challenging scenes.
- Designed a Flow-Matching–based reinforcement learning framework, enabling differentiable trajectory optimization with trustworthy dense rewarding and achieving more robust vision–language–action alignment.

Baidu, Inc. - International Technology R&D Department | Shenzhen, China 2024.12 - 2025.03
- Developed a novel DiT-based video generation framework with key-frame conditioning for controllable, infinite-length synthesis.
- Improved the visual fidelity of rendered text in image generation by designing specialized attention mechanisms.
- Contributed to the **SynClub** AI chat app by evaluating SOTA image generation models and optimizing text-to-image components for better performance and quality.

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, Wuhan University   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 Management, Writing, Public Speaking

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

Volunteer Experience

Chairman of: The 22nd LIESMARS Graduate Student Union

Director of: GeoScience Café Operation Center

Volunteer of: 2023/2024 International Graduate Workshop on Geo-Informatics

The 21st China Ocean Color Conference