

## EDUCATION

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|--|------------------------|
| The State Key Lab. LIESMARS, Wuhan University  | Wuhan, China           |
| <i>M.Sc. in Cartography and Geographic Information Systems</i>   | 2023 - 2026 (expected) |
| <ul style="list-style-type: none"> <li>• GPA: 3.55/4.00, Average Score: 89.69, IELTS: 7.0(6.0)</li> <li>• Advisor: Prof. Xianwei Zheng</li> <li>• Research area: Computer Vision and Geographical 3D Reconstruction</li> </ul> |                        |
| School of Remote Sensing and Information Engineering, Wuhan U  | Wuhan, China           |
| <i>B.Eng. in Remote Sensing Science and Technology</i>   | 2019 - 2023            |
| <ul style="list-style-type: none"> <li>• GPA: 3.75/4.00, Average Score: 88.90.</li> </ul>  |                        |

## PUBLICATIONS

1. Xu Pan, Zimin Xia, Xianwei Zheng. **Scale-aware Co-visible Region Detection for Image Matching.** *ISPRS Journal of Photogrammetry and Remote Sensing*, 2025.
  - Addressed large scale gaps in image matching via a hierarchical framework with Scale Head Attention for robust cross-scale correlation, achieving up to +8.41% precision gain over benchmarks.
2. Xu Pan, Qiyuan Ma, Jintao Zhang, Xianwei Zheng. **SAMatcher: Segment Anything Co-Visible for Robust Feature Matching.** *(In Preparation)*, 2026.
  - Enhances image matching under scale variation by leveraging SAM priors to detect semantically consistent co-visible segments and constrain hierarchical matching.

## PROJECTS

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|---|-------------------|
| SCoDe   |                   |
| <i>Github Repo: <a href="https://github.com/TwSphinx54/SCoDe">github.com/TwSphinx54/SCoDe</a></i> | 2023.10 - 2024.03 |
| Intelligent Interpretation Platform for Remote Sensing Images Based on Baidu PaddlePaddle         |                   |
| <i>Github Repo: <a href="https://github.com/TwSphinx54/I2RSI">github.com/TwSphinx54/I2RSI</a></i> | 2022.03 - 2024.01 |

## INTERNSHIPS

|  |                   |
|--|-------------------|
| A*STAR - Centre for Frontier AI Research (CFAR)   Singapore  | 2025.08 - present |
| <ul style="list-style-type: none"> <li>• 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.</li> <li>• Designed a Flow-Matching-based reinforcement learning framework, enabling differentiable trajectory optimization with trustworthy dense action rewarding and achieving more robust vision-language-action alignment.</li> </ul> |                   |
| Baidu, Inc. - Intl. Tech R&D Dept.   Shenzhen, China   | 2024.12 - 2025.03 |
| <ul style="list-style-type: none"> <li>• Developed a novel DiT-based video generation framework with key-frame conditioning for controllable, infinite-length synthesis.</li> <li>• Improved the visual fidelity of rendered text in image generation by designing specialized attention mechanisms.</li> <li>• Contributed to the SynClub AI chat app by evaluating SOTA image generation models and optimizing text-to-image components for better performance and quality.</li> </ul> |                   |

## ACADEMIC ACTIVITIES

2025 Annual Conference of the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC), Commission on Photogrammetry and Remote Sensing

Kunming, China

2025.07.28 - 2025.07.30

## 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
- 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 International Graduate Workshop on Geo-Informatics,

The 21st China Ocean Color Conference.