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EDUCATION

The State Key Lab. LIESMARS, Wuhan University

Wuhan, China

M.Sc. in Cartography and Geographic Information Systems

2023 - 2026 (expected)

• GPA: 3.55/4.00, Average Score: 89.69, IELTS: 6.5(6.0)

• Advisor: Prof. Xianwei Zheng

• Research area: Computer Vision and Geographical 3D Reconstruction

School of Remote Sensing and Information Engineering, Wuhan U Wuhan, China

B.Eng. in Remote Sensing Science and Technology

2019 - 2023

• GPA: 3.75/4.00, Average Score: 88.90.

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

SCoDe

Github Repo: github.com/TwSphinx54/SCoDe

2023.10 - 2024.03

Intelligent Interpretation Platform for Remote Sensing Images Based on Baidu PaddlePaddle

Github Repo: github.com/TwSphinx54/I2RSI 2022.03 - 2024.01

INTERNSHIPS

A*STAR - Centre for Frontier AI Research (CFAR) | Singapore 2025.08 - present

- Pioneered a flow-based spatial prior for VLA models for dynamic environments, introducing structured information streams that enhance cross-modal grounding and improve spatial reasoning over changing scenes.
- Designed a Flow-Matching-based reinforcement learning framework, enabling differentiable trajectory optimization with GRPO rollouts and achieving more robust vision-language-action alignment.

Baidu, Inc. - Intl. Tech R&D Dept. | 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 | 2025 Annual Conference of the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC), Commission on Photogrammetry and Remote Sensing | |
|-------------------------|---|------------|
| Activities | Kunming, China 2025.07.28 - | 2025.07.30 |
| | Graduate Academic Excellence Scholarship, | |
| Awards and Honors | The State Key Lab. LIESMARS, Wuhan University | 2024.12 |
| | 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 | 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, Olivino Christian Device of Device Christian C | 2024.02 |
| | 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 6.5). | |
| | Programming: Python, C++, MATLAB, HTML, CSS, JavaScript, C#, SQL, R. | |
| | Soft Skills: Leadership, Project Management, Event Management, Writing, Publi | 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 | |

Volunteer Experience Chairman of: The 22nd LIESMARS Graduate Student Union.

Director of: GeoScience Café Operation Center.

National Computer Rank Examination

Volunteer of: 2023 International Graduate Workshop on Geo-Informatics,

The 21st China Ocean Color Conference.