Xinpu Liu

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- https://xinpuliu.github.io/

Brief Bio

I'm Xinpu, a passionate and self-motivated explorer of 3D vision research. Currently, I'm a Ph.D. student (Jan. 2023 -) at the National University of Defense Technology (NUDT). My research interests focus on 3D Computer Vision, particularly on **object detection** and **point cloud processing**.

Education

2023 –	**Ph.D. Student,** supervised by Profs. Yulan Guo and Hanyun Wang. National University of Defense Technology, *Information and Communication Engineering.*
2020 – 2022	**M.E. Degree,** supervised by Prof. Jianwei Wan. National University of Defense Technology, *Information and Communication Engineering.*
2016 – 2020	**B.E. Degree,** supervised by Prof. Jianwei Wan. National University of Defense Technology, *Communication Engineering.*

Research Publications

1. **X. Liu**, Y. Ma, K. Xu, J. Wan, and Y. Guo, "Agfa-net: Adaptive global feature augmentation network for point cloud completion," *IEEE Geoscience and Remote Sensing Letters*, vol. 19, pp. 1–5, 2022. DOI: 10.1109/LGRS.2022.3198799.

2. **X. Liu**, Y. Ma, K. Xu, L. Wang, and J. Wan, "Kasiam: Keypoints-aligned siamese network for the completion of partial tls point clouds," *Remote Sensing*, vol. 14, no. 15, 2022, ISSN: 2072-4292. DOI: 10.3390/rs14153617.

3. **X. Liu**, G. Xu, K. Xu, J. Wan, and Y. Ma, "Point cloud completion by dynamic transformer with adaptive neighbourhood feature fusion," *IET Computer Vision*, vol. 16, no. 7, pp. 619–631, 2022. DOI: https://doi.org/10.1049/cvi2.12098.

4. **X. Liu**, Y. Ma, K. Xu, J. Wan, and Y. Guo, "Multi-scale transformer based point cloud completion network," *Journal of Image and Graphics*, vol. 27, no. 2, pp. 538–549, 2022. URL: http://www.cjig.cn/jig/ch/reader/create_pdf.aspx?file_no=20220217&flag=1&year_id=2022&quarter_id=2.

5. J. Wan, **X. Liu**, L. Chen, S. Ao, P. Zhang, and Y. Guo, "Geometric attribute-guided 3d semantic instance reconstruction," *Journal of Image and Graphics*, vol. 29, no. 1, pp. 218–230, 2024. URL: http://www.cjig.cn/jig/ch/reader/create_pdf.aspx?file_no=230106&flag=1&year_id=2024&quarter_id=1.

6. K. Xu, **X. Liu**, H. Wang, J. Wan, and Y. Guo, "Infrared-visible image feature dynamic selection object detection network," *Journal of Image and Graphics*, vol. 1, no. 1, pp. 1–15, 2024. URL: http://www.cjig.cn/jig/ch/reader/download_new_edit_content.aspx?edit_id=20231109142133001&file_no=202307080000002&journal_id=jig.

7. Z. Yuan, X. Zhou, **X. Liu**, D. Lu, B. Deng, and Y. Ma, "Human fall detection method using millimeter-wave radar based on rdsnet," *Journal of Radars*, vol. 10, no. 4, pp. 656–664, 2021, ISSN: 2095-283X. DOI: 10.12000/JR21015.

Academic Services

Journal Reviewer	IEEE TCSVT, IEEE TGRS, IEEE GRSL, Computers & Graphics, The Visual Computer, IET Computer Vision, IET Image Processing ...
Conference Reviewer	PRCV 2023, CICAI 2022, CICAI 2023 ...

Teaching Assistance

Lecture1	Digital signal processing (Spring Term, 2023)
Lecture2	Digital signal processing (Autumn Term, 2021)

Awards & Honors

2023	Outstanding Paper Award of the Journal of Image and Graphics
	Excellent Master Graduates of NUDT
	Second place in the 4th Aerospace Cup Innovation Competition (Top2 over 227 teams)
	Outstanding Student Award of NUDT
2022	First-class Scholarship of NUDT
2021	First place in the 3th Aerospace Cup Innovation Competition (Top1 over 422 teams)
	Qiangjun Scholarship of NUDT
2020	The 1st Prize in the Graduate Electronic Design Competition of China (Top 2%)
	Outstanding B.E. Dissertation Award of NUDT
2018	Silver Medal Winner of the University Physics Competition
	Honorable Mention Award of the Interdisciplinary Contest In Modeling (ICM)