Boni Hu

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% Homepage ⑧ Google Scholar

🎓 Education

Northwestern Polytechnical University   Mar. 2021 – Jul. 2025 (expected)

Doctor of Computer Vision.   Supervised by Prof. Shuhui Bu

University of Technology Sydney   Sept. 2019 – Mar. 2020

Visiting Master Student with Prof. Liang Zhao

Northwestern Polytechnical University   Sept. 2018 – Mar. 2021

Master of Computer Vision.   Supervised by Prof. Shuhui Bu

Northwestern A&F University   Sept. 2014 – Jul. 2018

Bachelor of Engineering.   Supervised by Prof. Huaibo Song

🔖 Selected Publications

1. **B. Hu**, L. Chen, R. Chen, S. Bu, P. Han, H. Li. *CurriculumLoc: Enhancing Cross-Domain Geolocalization Through Multistage Refinement*. IEEE Transactions on Geoscience and Remote Sensing, 2024 (IF=8.2).

2. **B. Hu**, H. Li, S. Bu, L. Chen, P. Han. *OriLoc: Orientation Estimation and Geolocalization for Limited FoV and Orientation-Free Cross-View Images.* **(in submission)**

3. **B. Hu**, L. Chen, B. Xu, S. Bu, P. Han, K. Li, Z. Xia, N. Li, K. Li, X. Cao, G. Wan. *Real-time dense point cloud generation and digital model construction of surface environment based on UAV platform.* National Remote Sensing Bulletin, 2023.

4. **B. Hu**, P. Leng, X. Zhang, P. Han, S. Bu, L. Chen. *DFNet: Deep Fusion Network for 3D Shape Classification and Retrieval.* Chinese Automation Congress (CAC), 2020.

5. L. Chen, **B. Hu**, J. Wang, S. Bu, G. Wang, P. Han, J. Chen. G^2*-Mapping: General Gaussian Mapping for Monocular, RGB-D, and LiDAR-Inertial-Visual Systems*. **(in submission)**

6. L. Weng, W. Yang, **B. Hu**, P. Han, S. Xue, Y. Zhang, H. Li, J. Jin, S. Bu. *MDINet: Multi-Domain Incremental Network for Change Detection*. IEEE Transactions on Geoscience and Remote Sensing, 2024 (IF=8.2).

7. Y. Zhang, S. Bu, **B. Hu**, P. Han, L. Weng, S. Xue. *Gcg-net: Graph classification geolocation network*. IEEE Transactions on Geoscience and Remote Sensing, 2023 (IF=8.2).

8. G. Feng, S. Chen, R. Fu, Z. Liao, Y. Wang, T. Liu, **B. Hu**, L. Xu, Z. Pei, H. Li, X. Li, X. Zhang, B. Dai. *FlashGS: Efficient 3D Gaussian Splatting for Large-scale and High-resolution Rendering*. **(in submission)**

9. S. Zhang, L. Zhao, S. Huang, R. Ma, **B. Hu**, Q. Hao. *3D reconstruction of deformable colon structures based on preoperative model and deep neural network.* IEEE International Conference on Robotics and Automation (ICRA), 2021.

10. Y. Zhang, R. Falque, L. Zhao, S. Huang, **B. Hu**. *Deep learning assisted automatic intra-operative 3d aortic deformation reconstruction.* Medical Image Computing and Computer Assisted Intervention?MICCAI 2020: 23rd International Conference, Lima, Peru, October 4?8, 2020, Proceedings, Part IV 23.

11. M. Qu, **B. Hu**, Y. Long, H. Song. *Target segmentation and picking point detection method mature tomatoes based on multi-color space fusion.* International Agricultural Engineering Journal, 2018.

💼 EXPERIENCE

Shanghai Artificial Intelligence Lab   Oct. 2024 – Apr. 2025

♡ HONORS AND AWARDS

- Honored as a Distinguished Doctoral Student by NWPU   2024
- Second-class Scholarship for Academic Excellence   2021-2024
- Third-class Scholarship for Academic Excellence   2018 & 2019
- Second-class Scholarship for Academic Excellence   2017

✒ PERSONAL

- Languages: Mandarin (native), English (CTE6)
- Technical Skills: Python, html, Java Script, Neo4j, Unreal Engine, ColMap, QGIS, Blender, NVIDIA Isaac Sim
- Hobbies: Yoga, long-distance running, cooking