# Yinxia Cao

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## EDUCATION

School of Geodesy and Geomatics, Wuhan University *09/2018–Expected 06/2023*

- *Ph.D. in Remote Sensing Image Processing with Deep Learning*
  *Research areas: weakly supervised semantic segmentation with remote sensing images*

School of Remote Sensing and Information Engineering, Wuhan University *09/2014–06/2018*

- *Master of Engineering, Major in Remote Sensing Image Processing (GPA: 3.9/4.0)*

## PUBLICATIONS

**Yinxia, Cao** and Xin Huang. "A full-level fused cross-task transfer learning method for building change detection using noise-robust pretrained networks on crowdsourced labels." Remote Sensing of Environment 284 (2023):113371. **(SCI Q1 Top, IF = 13.85)**

**Yinxia, Cao** and Xin Huang. "A coarse-to-fine weakly supervised learning method for green plastic cover segmentation using high-resolution remote sensing images." ISPRS Journal of Photogrammetry and Remote Sensing 188 (2022): 157-176. **(SCI Q1 Top, IF = 11.774)**

**Yinxia, Cao** and Xin Huang. "A deep learning method for building height estimation using high-resolution multi-view imagery over urban areas: A case study of 42 Chinese cities." Remote Sensing of Environment 264 (2021): 112590. **(SCI Q1 Top, IF = 13.85)**

Huang, Xin, **Yinxia Cao**, and Jiayi Li. "An automatic change detection method for monitoring newly constructed building areas using time-series multi-view high-resolution optical satellite images." Remote Sensing of Environment 244 (2020): 111802. **(SCI Q1 Top, IF = 13.85)**

Huang, X., Wang, Y., Li, J., Chang, X., **Cao, Y.**, Xie, J., & Gong, J. (2020). "High-resolution urban land-cover mapping and landscape analysis of the 42 major cities in China using ZY-3 satellite images." Science Bulletin, 65(12), 1039-1048. **(SCI Q1 Top, IF = 20.577)**

## PROJECT EXPERIENCE

- In 2022, the Open Fund Project of 54th Research Institute of China Electronics Technology Group Corporation, "Green Plastic Cover Segmentation with High-Resolution Remote Sensing Images".
  *Designed a weakly supervised segmentation method to identify pixel-level green plastic covers.*
- In 2019, National Natural Science Foundation of China, "Research on 3D Urban Scene Understanding and Dynamic Monitoring for Multi-view Satellites".
  *Proposed a newly-built building area detection algorithm and a building height estimation algorithm.*
- In 2018, Hubei Provincial Natural Science Foundation - Distinguished Youth Fund project "Intelligent Information Extraction of Urban Remote Sensing for Multi-view Satellites".
  *Designed a high-resolution urban land cover classification framework, and generated a 2-meter land cover product for 42 major cities in China.*

## AWARDS & HONORS

- First Prize, "Graduate Academic Innovation Prize", Wuhan University, 2022
- National Scholarship for Graduate Student, 2020
- Outstanding Graduates of Wuhan University, 2018
- Second Prize, The Chinese Mathematics Competition, 2015

## SKILLS & INTERESTS

Computer skills： Python, Pytorch, Matlab, IDL; Sports: Badminton, Taekwondo, Running