

Xiaoyu Wang

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[Personal Website](#) | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

RESEARCH INTERESTS

Geospatial AI and remote sensing; knowledge-guided, physics-informed, and multimodal machine learning for agricultural and environmental systems

EDUCATION

Ph.D. in Biological Systems Engineering 01/2023 – 05/2027 (*Expected*)
University of Wisconsin–Madison
Minor: *Computer Sciences*

B.S. in Computer Science and Technology 09/2017 – 06/2021
Xi'an Jiaotong University

RESEARCH APPOINTMENTS

Graduate Research Assistant 01/2023 – Present
University of Wisconsin–Madison

Research Intern 04/2021 – 04/2022
Microsoft Research Asia
Advisors: Xiangyu Kong and Xiulian Peng

Research Intern 09/2020 – 03/2021
SenseTime, Autonomous Driving Group, Shanghai, China
Advisors: Guohang Yan and Tao Ma

Remote Research Intern 06/2020 – 09/2020
Nanyang Technological University
Advisors: Tao Bai and Jun Zhao

Research Intern 06/2019 – 02/2020
INNNO

Research Assistant 01/2019 – 09/2019
College of Artificial Intelligence, Xi'an Jiaotong University
Advisor: Jinjun Wang

Research Assistant 10/2017 – 2018
Xi'an Jiaotong University
Advisor: Jinsong Han

PUBLICATIONS

Peer-Reviewed Journal Articles

Assimilation of LAI and FAPAR within DSSAT Guided by Leaf Growth Dynamics to Enhance Maize Yield Phenotyping 2026
Zezhong Tian *et al.*
Computers and Electronics in Agriculture, vol. 250, article 111946, 2026.

Learning County from Pixels: Corn Yield Prediction with Attention-Weighted Multiple Instance Learning 2025
Xiaoyu Wang *et al.*
International Journal of Remote Sensing, vol. 46, no. 7, pp. 2815–2845, 2025.

Book Chapters

Satellite-Based Mapping of Crop Yield 2026
Yuchi Ma *et al.*
In Agricultural Applications of Earth Observation, ch. 7, pp. 193–230, Elsevier, 2026.

Refereed Conference Papers

County-Level Crop Yield Prediction Using SMAP-Derived Data Products and Deep Learning Model 2024
Zhengwei Yang et al.
IEEE International Geoscience and Remote Sensing Symposium (IGARSS), pp. 3222–3225, 2024.

Multi-Modal Multi-Correlation Learning for Audio-Visual Speech Separation 2022
Xiaoyu Wang, Xiangyu Kong, Xiulian Peng, Yan Lu
Interspeech, pp. 886–890, 2022.

A Data-Free Approach for Targeted Universal Adversarial Perturbation 2021
Xiaoyu Wang, Tao Bai, Jun Zhao
Science of Cyber Security (SciSec), pp. 126–138, 2021.

Preprints

Knowledge-Guided Machine Learning Model with Soil Moisture for Corn Yield Prediction under Drought Con- 2025
ditions
Xiaoyu Wang et al.
arXiv:2503.16328, 2025.

Distributed Generative Adversarial Net 2019
Xiaoyu Wang, Ye Deng, Jinjun Wang
arXiv:1911.08128, 2019.

AWARDS & FUNDING

BSE Travel Award, University of Wisconsin–Madison 2025
Travel funding: \$1,000

Third-Class Award, Xi'an Jiaotong University 2017
Awarded for top 20% academic performance

TEACHING EXPERIENCE

Teaching Assistant, BSE 301: Land Information Management *Fall 2026*
University of Wisconsin–Madison
Revise lecture slides and answer student questions to support course learning.

Teaching Assistant, BSE 405: Artificial Intelligence in Agriculture *2024*
University of Wisconsin–Madison
Developed homework assignments and hands-on Google Earth Engine labs for teaching AI applications in agriculture. Delivered classroom instruction and led lab sessions; held office hours, answered student questions, graded assignments, and provided feedback.

PROFESSIONAL SERVICE

Ad Hoc Reviewer
International Journal of Applied Earth Observation and Geoinformation

TECHNICAL SKILLS

Programming: Python, C++, MATLAB, Shell

Machine Learning: PyTorch, TensorFlow, CUDA

Geospatial Computing: Google Earth Engine, GDAL, QGIS, ArcGIS