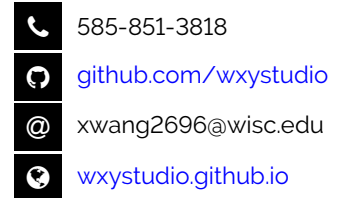


# Xiaoyu Wang



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## RESEARCH INTEREST

Remote sensing, Yield prediction, Knowledge-guided machine learning

## EDUCATION

2023.1 –	<b>Ph.D</b> Biological Systems Engineering	University of Wisconsin-Madison
2017 – 2021	<b>Bachelor</b> Computer Science and Technology	Xi'an Jiaotong University

## EXPERIENCE

2021.4 – 2022.4	<b>Internship</b> Research on Audio front-end processing: Speech Separation and Enhancement	<a href="#">Microsoft Research Asia</a> , supervised by <a href="#">Xiangyu Kong</a> and <a href="#">Xiulian Peng</a>
2020.9 – 2021.3	<b>Internship</b> Work on autonomous driving system, sensor calibration algorithm and train deep learning model	<a href="#">Sensetime</a> , supervised by <a href="#">Tao Ma</a> and <a href="#">Yikang Li</a>
2020.6 – 2020.9	<b>Remote Summer Intern</b> Research on Adversarial Example and Federated Learning	<a href="#">Nanyang Technological University</a> , supervised by <a href="#">Tao Bai</a> and <a href="#">Jun Zhao</a>
2019.1 – 2019.9	<b>Research Assistant</b> Research on distributed GAN	<a href="#">College of Artificial Intelligence, XJTU</a> , supervised by <a href="#">Jinjun Wang</a>
2019.6 – 2020.2	<b>Internship</b> do some projects about remote sensing, semantic segmentation and change detection	<a href="#">INNNO</a>
2017.10 – 2018	<b>Research Assistant</b> Research on computer security and deep learning	<a href="#">Xi'an Jiaotong University</a> , supervised by <a href="#">Jinsong Han</a>

## PUBLICATION

### Jounal

2025

*Learning county from pixels: Corn yield prediction with attention-weighted multiple instance learning*

**Xiaoyu Wang**, Yuchi Ma, Yijia Xu, Qunying Huang, Zhengwei Yang, Zhou Zhang

Accepted by *International Journal of Remote Sensing (IJRS)* 2025

### Conference

2024

*County Level Crop Yield Prediction Using Smap Derived Data Products and Deep Learning Model*

Zhengwei Yang, **Xiaoyu Wang**, Jingyi Huang, Zhou Zhang

Accepted by *IGARSS 2024-2024 IEEE International Geoscience and Remote Sensing Symposium*

2022

## MULTI-MODAL MULTI-CORRELATION LEARNING FOR AUDIO-VISUAL SPEECH SEPARATION

**Xiaoyu Wang**, Xiangyu Kong, Xiulian Peng, Yan Lu

Accepted by Interspeech 2022

2021

A data-free approach for targeted universal adversarial perturbation

**Xiaoyu Wang**, Tao Bai, Jun Zhao

Accepted by SciSec 2021

### **Preprint**

2025

Knowledge-guided machine learning model with soil moisture for corn yield prediction under drought conditions

**Xiaoyu Wang**, Yijia Xu, Jingyi Huang, Zhengwei Yang, Zhou Zhang

Submitted

## **GRANTS**

2025 BSE Travel Award of UW-Madison, 2025. (\$1000)

## **HONORS&AWARDS**

2017 third class award of Xi'an Jiaotong University. (GPA 20%)

## **TEACHING EXPERIENCE**

2024

BSE 405, ARTIFICIAL INTELLIGENCE IN AGRICULTURE

University of Wisconsin–Madison

Make homework and GEE lab code

## **PRESENTATION**

2025

Abstract

Knowledge-guided machine learning model with soil moisture for corn yield prediction under drought conditions

Accepted by AGU 2025

2025

Abstract

A knowledge-guided machine learning model with soil moisture for corn yield prediction under drought conditions

Accepted by ASABE 2025

2024

Abstract

Developing a Novel Knowledge-Guided Deep Learning Algorithm for County Level Crop Yield Prediction in the Face of Climate Change in the US Midwest

Accepted by AGU 2024

2024

Poster

Learning county from pixels: Corn yield prediction with attention-weighted multiple instance learning poster in UW-Madison College of Agricultural and Life Sciences

## TALKS

2025

*Knowledge-guided machine learning model with soil moisture for corn yield prediction under drought conditions*  
BSE 901, University of Wisconsin–Madison

2024

*Learning county from pixels: Corn yield prediction with attention-weighted multiple instance learning*  
BSE 901, University of Wisconsin–Madison

## PROFESSIONAL SERVICES

### Journal reviewer

*International Journal of Applied Earth Observation and Geoinformation (JAG)*

## PROGRAMING LANGUAGE & SKILL

*(Proficiency from top to bottom)*

### python:

*anaconda*

### C++:

*cmake; docker*

### LaTeX:

*overleaf*

### Shell

### CUDA C:

*cudnn; cublas*

### matlab

## TOOL

*(Proficiency from left to right)*

### Coding:

*ubuntu; git*

### GIS:

*QGIS; ArcGIS; gdal*

### Deep Learning:

*pytorch; tensorflow; TensorRT*

### Computer Vision:

*opencv*

### Slam:

*pcl; ros*

### Audio:

*librosa; asteroid; ffmpeg; Kaldi*