

Xingming Huang

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Education Background

M.S. Student in Hydrology and Water Resources

2026.9 – Present

Wuhan University, School of Water Resources and Hydropower Engineering

Supervisor: Prof. Jiyun Song

B.Eng. in Hydrology and Water Resources Engineering

2022 – 2026

Hohai University, College of Hydrology and Water Resources

Supervisor: Assoc. Prof. Lijun Chao

Research Interests

multi-scale urban meteorological modeling, high-resolution urban weather simulation, and urban climate extremes
machine learning-based multi-source remote sensing data fusion and downscaling.

Competition Awards

1. **Third Prize**, Jiangsu Provincial Advanced Mathematics Competition, Jiangsu Province, China.
2. **Third Prize**, National College Students Mathematics Competition, China.
3. **Second Prize**, “Shui Mo Nian Hua” Water Model Design Competition.
Designed a water model based on the theme of “Happy Rivers and Lakes,” using Changdang Lake and its surrounding area as the study region.
4. **Project Leader**, College Student Innovation and Entrepreneurship Program.
Conducted a machine learning-based project on multi-source soil moisture fusion and spatial downscaling using AMSR, SMOS, and SMAP satellite datasets.

Research Experience

Remote Sensing Soil Moisture Fusion and Downscaling Based on RF and LSTM: A Case Study of Anhui Province

Undergraduate Thesis / Research Project

Conducted a research project on multi-source remote sensing soil moisture fusion and downscaling using Random Forest (RF) and Long Short-Term Memory (LSTM) methods. Focused on improving the spatial resolution of coarse-resolution soil moisture products and generating spatiotemporally consistent soil moisture data for Anhui Province. The undergraduate thesis was awarded the University-level Excellent Undergraduate Thesis.

Academic Training, Summer School on Intelligent Watershed Management

Peking University, 2024

Participated in the first Summer School on Intelligent Watershed Management in 2024. Gained an understanding of current watershed management challenges in China and received training in hydrological modeling tools and methods, including IWS and CWatM.

Graduate Entrance Examination Performance

Applied Program: Hydrology and Water Resources, Wuhan University

Total Score: 396

Mathematics I: 139; Hydraulics: 135; English I: 65; Politics: 57

Skills

Programming & Data Analysis: MATLAB, Python

Hydrological Analysis: Hydrological statistics, hydrological forecasting, water resources system optimization

Modeling Tools: Random Forest, LSTM

Languages: Chinese native, English CET-4