

JUNHAO WANG

Nanjing 210044, China

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Education

Nanjing University of Information Science and Technology (NUIST)

September 2021 – Present

Physical Geography and Resource Environment, Bachelor of Science

GPA: 87/100

Relevant Coursework

- Global Change
- Cartography
- Remote Sensing Digital Image Processing
- Principles of Geographic Information Systems
- Hydrology and Water Resources
- Meteorology and Climatology
- Soil Geography
- Applied Statistical Analysis for Geoscience
- Principles of Terrestrial Ecosystem Ecology
- Analytical Chemistry

Research Experience

Climate impacts on the length of sea ice season and ecosystem response

Jul 2024 – Oct 2024

Supervisor: Prof. Paul Myers, pmyers@ualberta.ca (Canada MITACS research intern)

Edmonton, Canada

- Analyzed the changes in sea ice concentration and thickness and their spatial structure in Baffin Bay and Hudson Bay.
- Evaluated the changes of ice free season by looking at sea ice breakup and freeze up processes.
- Examined the correlation between sea ice changes and biogeochemistry pattern.

Land use changes and evaluation of habitat quality in China's Coastal Zone

Mar 2023 – Apr 2024

Supervisor: Prof. Chengyi Zhao, zhaocy@nuist.edu.cn

Nanjing, China

- Coupled the PLUS model and InVEST model to predict the spatial distribution of land use changes and quantitatively assessed the habitat quality from 2020 to 2060 under three SSP scenarios.
- Evaluated the driving forces of changes of habitat quality and contribution of land cover changes to the degradation of habitat quality.

Anthropogenic climate change Impact on runoff

Sep 2022 – Feb 2024

Supervisor: Prof. Buda Su, subd@nuist.edu.cn

Nanjing, China

- Revealed the changes in discharge pattern in the upper Yangtze River basin during 1900-2099 under different forcings.
- Compared the impact of anthropogenic climate change with the impact of natural variability on discharge pattern.

Achievements

Canada MITACS Globalink Research Internship Award (10,000 Canadian Dollar)

2024

Geospatial Big Data and GeoAI Graduate Summer School | *Excellent Student Scholar*

2023

NUIST First Class Scholarship

2022

NUIST Merit Student

2022

Technical Skills

Coding: R, Python, Matlab, Linux shell

Tools: ArcGIS Pro, ENVI, SPSS, Google Earth Engine

Models: SWAT Model, PLUS Model, InVest Model

Research Interests

- Hydroclimatology
- Climate change impacts and adaptation
- Ecosystem and landscape
- Arctic oceanography
- Land use and cover change (LUCC)

Publications

- **Wang, J.**, Chen, Z., and Su, B.: Anthropogenic climate change impact on runoff in the upper Yangtze River basin, *Journal of Flood Risk Management*, in review.
- Wang, G., **Wang, J.**, Chen, J., Ma, L., Ye, K., and Zheng, G.: Impact of *Spartina alterniflora* Expansion on the Tidal Creek Formation in the mudflat of Yellow Sea, in prep.
- **Wang, J.**, Chen, J., and Zhao, C.: Identification and evaluation of land use changes induced habitat quality in China's coastal zone, in prep.