

Yuhan JIANG

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EDUCATION

Wuhan University, M.A.

CHINA, 09/2021- present

- Department: State Key Laboratory of Engineering in Surveying, Mapping and Remote Sensing
- Major: Cartography and Geographic Information Systems
- Course: Geographic information theory and technology(A+), Aerospace photogrammetry(A), Smart city(A), Natural language processing technology(A), Numerical analysis(A-)

Wuhan University, B.E.

CHINA, 09/2017-06/2021

- Department: School of Remote Sensing and Information Engineering
- Major: Remote Sensing Science and Technology
- GPA: 3.84/4.0 (Grant direct admission to graduate school)

Hong Kong Polytechnic University, Summer school

HONGKONG, 06/2019-07/2019

- Department: Department of Land Surveying & Geo-Informatics
- Course: Mobile GIS & Location-based services(A), Spatial big data analytics(B+)

PUBLICATIONS

Papers

- Gui, Z., Liu, X., Zhao, A., **Jiang, Y.**, Ling, Z., Hu, X., Li, F., Yang, Z., Wu, H. (2023). Map retrieval intention recognition based on relevance feedback and geographic semantic guidance: For better understanding user retrieval demands. Information Processing and Management. *(Under Review)*
- **Jiang, Y.**, Gui, Z. (2023). Markov Chain-based Simulation Model of Grassland Desertification. Journal of Arid Land Resources and Environment. *(Under Review)*
- Gui, Z., Hu, X., Liu, X., Ling, Z., **Jiang, Y.**, Wu, H. (2023). Map Retrieval Intention Formalization and Recognition by Considering Geographic Semantics. Journal of Geo-information Science, 25 (6), 1186-1201. DOI: 10.12082/dqxxkx.2023.230019. [\[PDF\]](#)
- Xu, G., **Jiang, Y.**, Wang, S., Qin, K., Ding, J., Liu, Y., & Lu, B. (2021). Spatial disparities of self-reported COVID-19 cases and influencing factors in Wuhan, China. Sustainable Cities and Society, 76, 103485. DOI: 10.1016/j.scs.2021.103485. [\[PDF\]](#)

Patents

- Gui, Z., **Jiang, Y.**, Gong, J., Wu, H., Ling, Z., Liu, X., Zhao, A., A Method for Detecting Geographic Information Resource Retrieval Intentions and its Computer-Readable Medium. No.:2023109006905. *(Under Review)*
- Gui, Z., Hu, X., Lin, Z., **Jiang, Y.**, Wu, H., A Method for Semantic-Aware Geographic Information Resource Retrieval Intention Recognition. No.: ZL202210280298.0.

Software copyrights

- Successfully developed 5 web applications: Service and Analysis Platform for Automatic Extraction of Epidemic-related Locations, Chinese Food and Geography Platform, Supply and Demand Exchange Platform, Digital Town Geographic Information System and Big Event Information Analysis Platform. [\[Github\]](#)

RESEARCH EXPERIENCE

Map retrieval intention recognition

06/2021-present

- Drawing on relevant feedback data, this research aims to enhance the retrieval accuracy and assist the discovery and utilization of resources in an intention-driven way. In my undergraduate thesis, titled "WMS Layer Retrieval Intention Recognition Considering Map Features and Semantic Attributes", this issue was addressed by DBSCAN. [\[PDF\]](#)
- Currently, the hypergraph segmentation method is being employed to further optimize this research.

Spatial analysis of COVID-19

06/2020-10/2021

- This study focuses on quantifying the spatial differences of COVID-19 cases in Wuhan utilizing social media data (Weibo). To achieve this objective, we employ Kernel Density Estimation (KDE) and Geographically Weighted Regression (GWR) techniques to explore the spatial distribution patterns of COVID-19 cases in Wuhan. Furthermore, we conduct a correlation analysis to investigate the potential relationships between the distribution of COVID-19 cases and environmental factors.

Simulation of grassland desertification

02/2020-06/2020

- I utilize NetLogo to comprehensively simulate the process of grassland desertification, considering environmental, climatic, and ecological factors. Four major models have been established, including a weather prediction model based on Markov chains, a grass growth model, a model for the life cycles of sheep and wolves, and a desert expansion model.

SCHOLARSHIPS & HONORS

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| ● National Encouragement Scholarship | ● Interdisciplinary Contest in Modelling, Honourable Mention |
| ● Outstanding Student Leader | ● Asia and Pacific MCM, Second Prize |
| ● First-Class Scholarship | ● Mathematical Contest in Modelling, Honourable Mention |
| ● Outstanding Graduate of WHU | ● The 8th "TipDM Cup" Data Mining Race, Second Prize |

OTHERS

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| ● Languages: Chinese, English (IELTS band 6) | ● Cert.: National Computer Rank Examination Level 4 Database Engineer |
| ● Programming languages: Python, C/C++, R, Matlab | ● Hobbies: Hiking, badminton, yoga. |
| ● Working Software: PyCharm, IDEA, ArcGIS | |