Yuhan JIANG

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EDUCATION

Wuhan University, M.A. **CHINA, 09/2021- present**
o Department: State Key Laboratory of Engineering in Surveying, Mapping and Remote Sensing
o Major: Cartography and Geographic Information Systems
o 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**
o Department: School of Remote Sensing and Information Engineering
o Major: Remote Sensing Science and Technology
o GPA: 3.84/4.0 (Grant direct admission to graduate school)

Hong Kong Polytechnic University, Summer school **HONGKONG, 06/2019-07/2019**
o Department: Department of Land Surveying & Geo-Informatics
o Course: Mobile GIS & Location-based services(A), Spatial big data analytics(B+)

RESEARCH EXPERIENCE

Map retrieval intention recognition **06/2021-present**
o 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]
o Currently, the hypergraph segmentation method is being employed to further optimize this research.

Spatial analysis of COVID-19 **06/2020-10/2021**
o 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. [PDF]

Simulation of grassland desertification **02/2020-05/2020**
o 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. [PDF]

PUBLICATIONS

Papers **Co-author, 06/2021-02/2023**
o 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]
o 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 **Co-author, 06/2021-06/2023**
o 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. (2023109006905.)
o Gui, Z., Hu, X., Lin, Z., **Jiang, Y.**, Wu, H., A Method for Semantic-Aware Geographic Information Resource Retrieval Intention Recognition. (ZL202210280298.0.)

Software copyrights **First author, 02/2019-04/2021**
o I have successfully developed 3 web applications: Big Event Information Analysis Platform, Supply and Demand Exchange Platform and Chinese Food and Geography Platform. [Github]

SCHOLARSHIPS & HONORS

- Merit Student of WHU
- National Encouragement Scholarship
- Advanced Individual in Summer Practice
- Outstanding Student Leader
- First-Class Scholarship
- Outstanding Graduate of WHU
- Graduate Freshman Scholarship of WHU

- Interdisciplinary Contest in Modelling, Honourable Mention
- Asia and Pacific MCM, Second Price
- Mathematical Contest in Modelling, Honourable Mention
- The 8th "TipDM Cup" Data Mining Race, Second Prize
- Certificate Authority Cup International Mathematical Contest in Modelling, Second Prize
- Women's Triple Jump Competition, Third Place

SKILLS

- **Languages:** Chinese, English
- **Programming languages:** Python, C/C++, R, Matlab
- **Working Software:** PyCharm, IDEA, ArcGIS
- **Others:** National Computer Rank Examination Level 4 Database Engineer