<u>Jian LIU</u>

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EDUCATION

09/2019 – 06/2022	**Master of Human Geography** *College of Resource Environment and Tourism, Capital Normal University (Beijing, China)* ***Major courses***: *Application of GIS in Human Geography, Regional Economics, Urban and Regional Planning, The Mathematical and Physical Fundamentals of Earth Science.*
09/2015 - 06/2019	**Bachelor of Human Geography and Urban Planning** *College of Geography and Environmental Science, Northwest Normal University (Lanzhou, China)* ***Major courses***: *Human Geography, Urban Geography, Geographic Information System, Economic Geography, Principles of Urban Planning.*

RESEARCH INTERESTS

- Human mobility (travel behaviors & activity space)
- Urban informatics (big data analytics & applications)
- Urban systems (urban structure & complex networks)
- Goal: revealing human mobility and urban dynamics in cities for a smarter resident life and urban development

PUBLICATIONS

1. **Liu, J.,** Meng, B., Yang, M., Peng, X., Zhan, D., & Zhi, G. (2022). Quantifying spatial disparities and influencing factors of home, work, and activity space separation in Beijing. *Habitat International*, 126, 102621.
2. Liu, H., **Liu, J.,** Li, M., Gou, P., & Cheng, Y. (2022). Assessing the evolution of PM2. 5 and related health impacts resulting from air quality policies in China. *Environmental Impact Assessment Review*, 93, 106727. (Corresponding author)
3. **Liu, J.,** Meng, B., Xu, J., Li, R. (2023). Exploring public transportation supply–demand structure of Beijing from the perspective of spatial interaction network. *ISPRS International Journal of Geo-Information,* 12(6), 213.
4. **Liu, J.,** Meng, B., Wang, J., Chen, S., Tian, B., & Zhi, G. (2021). Exploring the spatiotemporal patterns of residents' daily activities using text-based social media data: a case study of Beijing, China. *ISPRS International Journal of Geo-Information*, 10(6), 389.
5. **Liu, J.,** Meng, B., Chen, S., Chen, Z., & Zhan, D. (2021). Study on the relationship between dining activities of beijing residents and urban space based on multi-sources big data. *Human Geography*, 36(2), 63-72+183. (in Chinese)

6. Zhan, D., Zhang, Q., Kwan, M.P., **Liu, J.**, Zhan, B., & Zhang, W. (2022). Impact of urban green space on self-rated health: evidence from Beijing. *Frontiers in Public Health*, 3025.

7. Chen, S., Meng, B., Liu, N., Qi, Z., **Liu, J.,** & Wang, J. (2022). Cultural perception of the historical and cultural blocks of Beijing based on Weibo photos. *Land*, 11(4), 495.

8. Wang, B., Meng, B., Wang, J., Chen, S., & **Liu, J.** (2021). Perceiving residents' festival activities based on social media data: a case study in Beijing, China. *ISPRS International Journal of Geo-Information*, 10(7), 474.

9. Tian, B., Meng, B., Wang, J., Zhi, G., Qi, Z., Chen, S., & **Liu, J.** (2022). Spatio-temporal patterns of fitness behavior in Beijing based on social media data. *Sustainability*, 14(7), 4106.

10. Zhi, G., Meng, B., Wang, J., Chen, S., Tian, B., Ji, H., ... & **Liu, J.** (2021). Spatial analysis of urban residential sensitivity to heatwave events: case studies in five megacities in China. *Remote Sensing*, 13(20), 4086.

11. Zhu, Y., Wang, J., Meng, B., Ji, H., Wang, S., Zhi, G., **Liu, J.,** & Shi, C. (2022). Quantifying spatiotemporal heterogeneities in air pollution-related health and associated determinants using geospatial big data: a case study in Beijing. *Remote Sensing*, 14(16), 4012.

12. Liu, H., & **Liu, J**. Dataset of premature deaths avoided due to PM2.5 pollution control policies in Chinese cities (2019) [DS/OL]. Science Data Bank, 2023[2023-01-13]. https://doi.org/10.57760/sciencedb.07110. DOI:10.57760/sciencedb.07110.

13. **Liu, J.,** Meng, B., Shi, C. A multi-activity view of intra-urban travel networks in Beijing. (Under review)

RESEARCH PROJECTS

11/2022 – Present	**Towards a digital-twin system for smart mobility for people with disabilities (PwDs) using multi-data sensing and big data analytics** *(Funded by Research Institute for Sustainable Urban Development (RISUD), The Hong Kong Polytechnic University)*
	Contribution: *Developing VGI platform, Data collection, Writing annual report.*
09/2019 – 03/2022	**Geographic big data mining and spatiotemporal pattern discovery** *(Funded by the National Key Research and Development Program of China (Grant Nos. 2017YFB0503605))*
	Contribution: *Data processing (mobile phone data, social media data, poi data), Textual data mining (NLP), Spatial statistical analysis (ArcGIS Pro, python), Writing papers.*
09/2019 – 06/2022	**Jobs-housing separation patterns, measuring, early warning and planning response in the context of functional reorganization** *(Funded by National Natural Science Foundation of China Project (Grant Nos. 51878052))*
	Contribution: *Data collection and processing (questionnaire survey, mobile phone data), Spatial statistical analysis and visualization (ArcGIS Pro, Python), Writing papers.*

09/2019 - 12/2020	**Measuring the spatial matching patterns of urban elements** *(Funded by National Natural Science Foundation of China Project (Grant Nos. 41671165))* ***Contribution***: *Data processing (questionnaire survey data, mobile phone data, social media data), Textual data mining (NLP), Spatial statistical analysis and visualization (ArcGIS Pro, Python, R), Writing papers.*
12/2020 – 07/2021	**The impact of emerging technologies on future urban space under the trend of urbanization** *(Funded by the "Tsinghua-Tencent" Emerging Technologies × Future Urban Space project)* ***Contribution***: *Proposal and Report writing.*

CONFERENCES

Presentations

1. "Exploring the relationship between dining activities of Beijing residents and urban space based on multi-sources big data", *The 15ᵗʰ Conference on Spatiotemporal Behavior and Planning*. Shenzhen, China. December 13-15, 2019.
2. "Exploring the relationship between residents' daily activities and urban spatial structure based on social media data", *The Symposium of Research Frontiers on Urban Space and Resident Behavior in Beijing,* Beijing, China. December 25, 2019.
3. "Revealing the activity diversity of Beijing residents and its influencing factors", *The 16ᵗʰ Conference on Spatiotemporal Behavior and Planning*. Xiamen, China. December 12, 2020.
4. "Quantifying the characteristics and influencing factors of spatial separation of "Living-Working-Activity" in Beijing," *The 11ᵗʰ Forum on Spatially Integrated Humanities and Social Science*, Hangzhou, China. July 7-10, 2021.
5. "Mining the residents' daily activity patterns of Beijing from the perspective of behavioral sensing," *2021 China Behavioral Geography Annual Conference and the 17ᵗʰ Conference on Spatiotemporal Behavior and Planning,* Wuhan, China, November 20-21, 2021.

Participated conferences

1. 27/10/2019: *Workshop on Complex Systems and Social Computing*. Beijing, China.
2. 31/10/2019 - 3/11/2019: *2019 China Conference on Geography*. Beijing, China.
3. 8/05/2020 - 9/05/2020: *2020 ACM SIGSPATIAL CHINA Conference of Spatial Data Intelligence*. (Online)
4. 10/05/2020: *The 16ᵗʰ China Networks Science Forum in 2020.* (Online)
5. 22/08/2020 - 23/08/2020: *China National Conference on Big Data & Social Comptuing, BDSC 2020.* (Online)

SKILLS

Software Skills:
Spatial Analysis: ArcGIS (Pro), QGIS, GeoDa, CrimeStat, SatScan, Geodetector.
Statistical Analysis: Gephi, Tableau, SPSS, Origin.

Others: Adobe Photoshop, Illustrator, Indesign & Premiere, AutoCAD, SketchUp.

English level: IELTS 6.5

Programming Language: Python, R.

Other Skills: Fieldwork, Questionnaire Survey, In-depth Interview.

AWARDS

Outstanding Postgraduates Awards in Beijing. (2022)

Presidential Scholarship of Capital Normal University. (2022)

National scholarship for Postgraduates. (2021)

Individual Scholarship for Postgraduate of Capital Normal University. (2021)

Second-class Scholarship for Postgraduate of Capital Normal University. (2021)

National Encouragement Scholarship. (2017-2018)

SERVICE

Manuscript Reviews for Peer-reviewed Journals:

[1]   Environmental Impact Assessment Review

[2]   ISPRS International Journal of Geo-Information;

[3]   Land;

[4]   Environment, Development and Sustainability

[5]   Sustainability.