

Wenbo Lv

undergraduate

Some stuff about me

- I am passionate about **developing innovative spatial analysis methods** that leverage **spatial relationships**, such as *spatial dependence*, *spatial heterogeneity*, and *geographical similarity*, to advance *urban sustainability* and *climate change mitigation* efforts.
- I possess expertise in *data analysis*, *statistical modeling*, and the development of *R packages* and open-source analytical tools utilizing **R**, **C++**, and **Python**.
- I have contributed to the **development** and **maintenance** of several open-source spatial analysis tools within the R community and remain dedicated to **advancing open-source geospatial analysis software**.

Education

2021-2025 **BSc In Geographic Information Science**, *Shaanxi Normal University*, Xi'an, Shaanxi.

Publications

1. Lv, W., Liu, F., Cai, K., Cao, Y., Deng, M., Liang, W., Yan, J., & Wang, G. (2024). Distinguishing the impacts and gradient effects of climate change and human activities on vegetation cover in the weihe river basin, china. *Journal of Geophysical Research: Biogeosciences*, 129(10). <https://doi.org/10.1029/2024jg008297>
2. Song, Z., Liu, F., Lv, W., & Yan, J. (2023). Classification of urban agricultural functional regions and their carbon effects at the county level in the pearl river delta, china. *Agriculture*, 13(9). <https://doi.org/10.3390/agriculture13091734>
3. Song, Z., Liu, F., & Lv, W. (2023). *Spatiotemporal characteristics and optimization strategies of urban-rural development disparities in china's urban agglomerations(in chinese)* (pp. 1418–1429). People's Cities, Empowered by Planning - Proceedings of the 2023 China Urban Planning Annual Conference (14 Regional Planning; Urban Economy). <https://link.cnki.net/doi/10.26914/c.cnkihy.2023.061565>

Honor

- 2023.12 **Grand Prize in the 12th National University Student GIS Application Skills Competition.**
- 2023.11 **First Prize in the Second National University Student Ecological Environment Management Research Innovation Competition.**

Xi'an, Shaanxi

✉ lyu.geosocial@gmail.com • spatlyu.github.io •  SpatLyu

 0009-0002-6003-3800

1/2

- 2023.12 **Second Prize of the 5th 'Guodi Cup' National College Student Natural Resource Science and Technology Competition, China Society of Natural Resources.**
- 2021.10 **Outstanding Individual in Military Training Publicity for College Students, Shaanxi Normal University.**
- 2024.06 **National University Student Innovation and Entrepreneurship Training Program Qualified Completion.**

Unpublished

- First Author **gdverse: An R package for spatial stratified heterogeneity family, Submitting to TGIS.**
- First Author **On the role of explicit spatial information in stratified heterogeneity, Writing in progress, planning to submit to AAAG.**
- First Author **A correlation indicator based on spatial patterns, Writing in progress, planning to submit to IJGIS.**
- First Author **Geocomplexity Mitigates Spatial Bias, Writing in progress, planning to submit to IJGIS.**

In research

- Leader **Extract Urban Spatial Boundaries in Xi'an City Using Deep Learning, Utilized advanced spatial sampling methods and unsupervised algorithms to automatically generate sample sets. Employed geographically weighted neural networks combined with logistic regression to extract urban spatial boundaries.**

Xi'an, Shaanxi

✉ lyu.geosocial@gmail.com • 🌐 spatlyu.github.io • 🐙 SpatLyu

📞 0009-0002-6003-3800

2/2