

Ganmin Yin

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📍 Room 109, Remote Sensing Building, Peking University, Beijing, China

EDUCATION

Peking University

2020.09 – 2025.06 (Expected)

- Ph.D. Student in *Geographical Information Science*
- GPA 3.60 / 4.00 · Top 30%
- Supervisor: Prof. Zhou Huang & Prof. Yu Liu

Peking University

2016.09 – 2020.06

- B.S. in *Geographical Information Science*
- GPA 3.53 / 4.00 · Top 30%
- Supervisor: Prof. Zhou Huang

RESEARCH INTERESTS

- Transportation & Travel Behaviour Analysis
- Urban Growth & Development Patterns
- Remote Sensing & Social Sensing
- Geospatial Artificial Intelligence & Its Applications
- Sustainable Development Goals (SDGs)

PUBLICATIONS

*Corresponding author, #Equal contribution

1. How to quantify the travel ratio of urban public transport at a high spatial resolution? A novel computational framework with geospatial big data

Ganmin Yin, Zhou Huang*, Liu Yang, Eran Ben-Elia, Liyan Xu, Bronte Scheuer, Yu Liu

10.1016/j.jag.2023.103245

International Journal of Applied Earth Observation and Geoinformation (IF=7.5)

2. ConvGCN-RF: A hybrid learning model for commuting flow prediction considering geographical semantics and neighborhood effects

Ganmin Yin, Zhou Huang*, Yi Bao, Han Wang, Linna Li, Xiaolei Ma, Yi Zhang

10.1007/s10707-022-00467-0

GeoInformatica (IF=2.0)

3. Quantifying the environmental characteristics influencing the attractiveness of commercial agglomerations with big geo-data

Zhou Huang, Ganmin Yin, Xia Peng*, Xiao Zhou, Quanhua Dong

10.1177/23998083231158370

Environment and Planning B: Urban Analytics and City Science (IF=3.5)

4. PATRIC: A high performance parallel urban transport simulation framework based on traffic clustering

Lin Wan, Ganmin Yin, Jiahao Wang, Golan Ben-Dor, Aleksey Ogulenko, Zhou Huang*

10.1016/j.simpat.2023.102775

Simulation Modelling Practice and Theory (IF=4.2)

5. Big geodata reveals spatial patterns of built environment stocks across and within cities in China

Zhou Huang*#, Yi Bao#, Ruichang Mao#, Han Wang, Ganmin Yin, Lin Wan, Houji Qi, Qiaoxuan Li, Hongzhao Tang, Qiance Liu, Linna Li, Bailang Yu, Qinghua Guo, Yu Liu, Huadong Guo, Gang Liu*

10.1016/j.j.eng.2023.05.015

Engineering (IF=12.8)

6. The spatially varying effects of built environment characteristics on the integrated usage of dockless bike-sharing and public transport

Xiao Zhou, Quanhua Dong, Zhou Huang*, Ganmin Yin, Guoqing Zhou, Yu Liu

10.1016/j.scs.2022.104348

Sustainable Cities and Society (IF=11.7)

7. Matching end-of-life household vehicle generation and recycling capacity in Chinese cities: A spatio-temporal analysis for 2022–2050

Shuliang Ren, Zhou Huang*, Yi Bao, **Ganmin Yin**, Jingfan Yang, Xv Shan

10.1016/j.scitotenv.2023.165498

Science of The Total Environment (IF=9.8)

8. DouFu: A double fusion joint learning method for driving trajectory representation

Han Wang, Zhou Huang*, Xiao Zhou, **Ganmin Yin**, Yi Bao

10.1016/j.knosys.2022.110035

Knowledge-Based Systems (IF=8.8)

9. Applying Ollivier-Ricci curvature to indicate the mismatch of travel demand and supply in urban transit network

Yaoli Wang, Zhou Huang*, **Ganmin Yin**, Haifeng Li, Liu Yang, Yuelong Su, Yu Liu, Xv Shan

10.1016/j.jag.2021.102666

International Journal of Applied Earth Observation and Geoinformation (IF=7.5)

10. High-resolution quantification of building stock using multi-source remote sensing imagery and deep learning

Yi Bao, Zhou Huang*, Han Wang, **Ganmin Yin**, Xiao Zhou, Yong Gao

10.1111/jiec.13356

Journal of Industrial Ecology (IF=5.9)

11. Optimizing segmented trajectory data storage with HBase for improved spatio-temporal query efficiency

Yi Bao, Zhou Huang*, Xuri Gong, Yuyang Zhang, **Ganmin Yin**, Han Wang

10.1080/17538947.2023.2192979

International Journal of Digital Earth (IF=5.1)

12. A unified spatial multigraph analysis for public transport performance

Yaoli Wang, Di Zhu, **Ganmin Yin**, Zhou Huang*, Yu Liu

10.1038/s41598-020-65175-x

Scientific Reports (IF=4.6)

13. Site selection for hybrid offshore wind and wave power plants using a four-stage framework: A case study in Hainan, China

Xiao Zhou, Zhou Huang*, Han Wang, **Ganmin Yin**, Yi Bao, Quanhua Dong, Yu Liu

10.1016/j.ocecoaman.2022.106035

Ocean & Coastal Management (IF=4.6)

PRESENTATIONS & TALKS

1. Exploring the influencing factors of urban commercial agglomeration attractiveness based on mobile signaling big data

Ganmin Yin · Oral

The 18th China Annual Conference on GIS Theory and Method · May, 2023 · Guilin · China

2. Understanding public transport supply and demand from the perspective of public transport travel ratio in a fine spatial scale

Ganmin Yin · Oral

The 29th International Conference on Geoinformatics (CPGIS 2021) · Nov, 2021 · Nanchang · China

PROJECTS

Multi-source Trajectory Data Computing Methods and Applications for Traffic Infrastructure Optimization

2023.01 – 2026.12

Research Assistant · National Natural Science Foundation of China (No. 42271471)

- Explore human travel behaviour using multisource trajectory big data
- Apply big data analytics and machine learning algorithms to geographic modeling and urban planning

Mobility as a Service: From Rigid to Smart Evolving Public Transport

2019.08 – 2021.07

Research Assistant · National Key Research and Development Program of China (No. 2017YFE0196100)

- Analyze the supply and demand of urban public transportation with geospatial big data
- Responsible for project management, communication, and closure

EXPERIENCE

| | |
|--|-------------------|
| Research Assistant | 2018.10 – present |
| Spatio-Temporal Social Sensing Lab (S^3 -Lab), Peking University | |
| <ul style="list-style-type: none">• Focus on spatial-temporal data analysis and modeling• Explore the human-environment relationship with geospatial big data• Leverage deep learning techniques to examine issues including transportation and urbanization | |
| Visiting Student | 2017.09 – 2017.10 |
| UC Berkeley, Davis & Santa Barbara | |
| <ul style="list-style-type: none">• Course study and field practice• Apply remote sensing imagery to analyze drought in northern China | |

SELECTED HONOR & AWARDS

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| Rising Star Award , College GIS Forum (CGF), China (No.1) | 2023 |
| Presidential Scholarship , Peking University (Top 5%) | 2023 |
| Presidential Scholarship , Peking University (Top 5%) | 2022 |
| Merit Student , Peking University | 2022 |
| LongRuan Technology Scholarship , Beijing LongRuan Technology Co. Ltd. | 2020 |
| Academic Excellence Award , Peking University | 2017 |

SERVICES

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|--|------|
| <i>Peer Reviewer</i> | |
| Transactions in GIS | 2021 |
| <i>Session Chair</i> | |
| The 2021 International Graduate Workshop on GeoInformatics (IGWG 2021) | 2021 |