Ganmin Yin

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

EDUCATION

Peking University   2020.09 – 2025.06 (Expected)
- <u>Ph.D. Student</u> in *Geographical Information Science*
- GPA 3.60 / 4.00 · Top 30%
- Supervisor: Prof. Zhou Huang & Prof. Yu Liu

Peking University   2016.09 – 2020.06
- <u>B.S.</u> 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=7.67)

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=2.77)

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=3.51)

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=4.20)

5. 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=10.70)

6. 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=8.14)

7. 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=7.67)

8. 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=7.20)

9. 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=5.00)

10. 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=4.61)

11. 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=4.30)

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

- 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

- Course study and field practice
- Apply remote sensing imagery to analyze drought in northern China

SELECTED HONOR & AWARDS

Presidential Scholarship, Peking University   2022

Merit (Three-Good) Student, Peking University   2022

LongRuan Technology Scholarship, Beijing LongRuan Technology Co. Ltd.   2020

Academic Excellence Award, Peking University   2017

SERVICES

Peer Reviewer

Transactions in GIS   2021

Session Chair

The 2021 International Graduate Workshop on GeoInformatics (IGWG 2021)   2021