Yan Zhang

✉ yanzhang@cuhk.edu.hk · ⚎Birthday: 1997 April

🎓 Education

Wuhan University, Wuhan, China   Sep 2014 – Jun 2018

Bachelor of Science in Geomatics Engineering

Wuhan University, Wuhan, China   Sep 2018 – Jun 2020

Master of Science in Geomatics Engineering

Wuhan University, Wuhan, China   Sep 2020 – Jun 2023

Phd in Cartography and Geographic Information Systems Advisor: Professor Neng-Cheng Chen

Peking University, Beijing,China   Sep 2023 – Nov 2023

Visiting Student in Cartography and Geographic Information Systems Advisor: Professor Yu Liu

National University of Singapore, Singapore,Singapore   Jan 2022 – Jan 2023

Joint Student in School of Design and Environment Advisor: Filip Biljecki

Chinese University of Hong Kong, Hong Kong, China   Dec 2023 – Now

Postdoctoral Fellow in Institute of Space and Earth Information Science Advisor: Mei-Po Kwan

👥 Publications

Selected Paper: **Knowledge and Topology: A Two Layer Spatially Dependent Graph Neural Networks to Identify Urban Functions with Time-series Street View Image**   April 2023

First Author, Zhang Y, Liu P, Biljecki F   ISPRS Journal of Photogrammetry and Remote Sensing

IF=12.7, SCI **Q1**, **ESI 3%**

1. Multi-source sensor based urban habitat and resident health sensing: A case study of Wuhan, China Building and Environment   April 2021

First Author, Zhang Y, Chen N, Du W*, et al.   IF=7.4,SCI **Q1**

2. KE-CNN: A new social sensing method for extracting geographical attributes from text semantic features and its application in Wuhan, China Computers, Environment and Urban Systems   May 2021

Corresponding Author, Chen N, Zhang Y*, Du W*, et al.   IF=6.8,SSCI **Q1**

3. Extracting the location of flooding events in urban systems and analyzing the semantic risk using social sensing data Journal of Hydrology   December 2021

First Author, Zhang Y, Chen Z, Chen N*, et al.   IF=6.4,SCI **Q1**

4. City2vec: Urban knowledge discovery based on population mobile network Sustainable Cities and Society   July 2022

First Author, Zhang Y, Zheng X, Chen N*, et al.   IF=11.7,SCI **Q1**

5. Migratable urban street scene sensing method based on vision language pre-trained model
International Journal of Applied Earth Observation and Geoinformation   August 2022

*First Author, **Zhang Y**, Zhang Fan, Chen N*.*   IF=7.5,SCI **Q1**

6. Will Carbon Trading Reduce Spatial Inequality? A Spatial Analysis of 200 Cities in China
Journal of Environmental Management   October 2022

*First Author, **Zhang Y**, Chen N, Chen Z*, et al.*   IF=8.7,SCI **Q1**

7. Highway Vehicle Route Reconstruction Using Sparse and Noisy Communication Base Station Fingerprints IEEE Sensors   December 2022

*Co-corresponding author (Advisor as first author, myself as second author, and corresponding author), Li Yingbing **Zhang Y***, et al.*   IF=4.3,SCI **Q1**

8. Inferring socioeconomic environment from built environment characteristics based street view images International Journal of Applied Earth Observation and Geoinformation   September 2023

*First Author, **Zhang Y**, Fan Zhang, et al.*   IF=7.5,SCI **Q1**

9.High or low? Exploring the restorative effects of visual levels on campus spaces using machine learning and street view imagery   Urban Forestry & Urban Greening   December 2023
*Ma H, Xu Q, **Zhang Y***   IF=6.4

10. Urban Fine-Grained Spatial Structure Detection Based on a New Traffic Flow Interaction Analysis Framework ISPRS International Journal of Geo-Information   April 2021
*First Author, **Zhang Y**, Zheng X, Chen M, et al.*   IF=3.4,SCI **Q2**

Collaboration Author:

11. Pedestrian evacuation planning under dam-break flood disaster considering road risk and road pedestrian demand   2024

*Wang W, Li Y, **Zhang Y**, Wu Z*   International Journal of Disaster Risk Reduction

12. Analysing gender differences in the perceived safety from street view imagery   2023

*Cui Q, **Zhang Y**, Yang G, Huang Y, Chen Y*   International Journal of Applied Earth Observation and Geoinformation

13. Examining supply-demand imbalances and social inequalities of regulating ecosystem services in high-density cities: A case study of Wuhan, China   2022

*Zhai W, Zhang K, Gou F, Cheng H, Li Z, **Zhang Y***   Ecological Indicators

14. Knowledge mining and graph visualization of ancient Chinese scientific and technological documents bibliographic summaries based on digital humanities   2023
*Zheng X, Li M, Wan Z, **Zhang Y***   Library Hi Tech

15. Urban traffic flow prediction: A dynamic temporal graph network considering missing values   2023

*Wang P, **Zhang Y**, Hu T, Zhang T*   International Journal of Geographical Information Science

16. Explainable spatially explicit geospatial artificial intelligence in urban analytics   2023

*Liu P, **Zhang Y**, Biljecki F*   Environment and Planning B: Urban Analytics and City Science

17. A systematic review and quantitative meta-analysis of the relationships between driving forces and cyanobacterial blooms at global scale 2022

*Wang S, Zhang X, Chen N, Tian L, **Zhang Y**, Nam WH*   Environmental Research

18. A new geo-propagation model of event evolution chain based on public opinion and epidemic coupling International Journal of Environmental Research and Public Health   December 2020

*First Author, **Zhang Y**, Chen N, Du W*, et al.*   IF=4.6,SSCI **Q1**

19. Risk assessment of COVID-19 based on multisource data from a geographical viewpoint 2020

***Zhang Y**, Li Y, Yang B, Zheng X, Chen M*   IEEE Access, SCI

20. Spatiotemporal dynamics of wetlands and their driving factors based on PLS-SEM: A case study in Wuhan 2021

*Wang C, Ma L, **Zhang Y**, Chen N, Wang W*   Science of the Total Environment, SCI

21. Towards sustainable smart cities: Maturity assessment and development pattern recognition in China 2022

*Liu J, Chen N, Chen Z, Xu L, Du W, **Zhang Y**, Wang C*   Journal of Cleaner Production, SCI

22. Invention Patent, Intelligent Analysis and Mining Method and System for Spatiotemporal Processes Based on Multi-Source Big Data, CN115455076A

23. Emergency Big Data Spatial Analysis and Multi-factor Association Mining Monograph Wuhan University Press, **Co-edited by Li Yingbing, Zhang Yan**

🏛 Awards and Honors

Ministry of Education, National Scholarship for Ph.D. Students, **Top 3%**		December 2021
Ministry of Education, National Scholarship for Ph.D. Students, **Top 3%**		October 2022
China Scholarship Council, Scholarship for Studying Abroad		May 2021
Wuhan University, First-class Academic Scholarship and Outstanding Graduate		November 2021
Wuhan University, First-class Academic Scholarship and Outstanding Graduate		November 2022

Wuhan Municipal Government, Third Prize in the City Data Development Competition (First Place Individual Ranking), **Top 5%** January 2022

Wuhan University, Top 10 Inspirational Graduate Students (held every two years) April 2023

Wuhan University, Second Prize for Academic Innovation December 2023

Surveying and Mapping Press, Excellent Original WeChat Account in the Geoinformation Field (Product and Technology category) January 2024

🌐 Project Involvement

- National Key R&D Program of China: "National Public Security Emergency Platform" (2018YFC0807000)
- National Key R&D Program of China: "Urban Multi-scale Integrated Perception Service System and Demonstration" (2018YFB2100504)
- Ministry of Education, Singapore: "Multi-scale Digital Twins for the Urban Environment: From Heartbeats to Cities"
- Project funded by the Hong Kong Productivity Council and the Transport Department: "Vehicle Detection and Vehicle-kilometrage Estimation Based on Remote Sensing Technologies"

⚙ Research Interests

My research interests include GeoAI and Social sensing.

- Location-based Social Media in Disaster and Emergency Event

- Urban Visual Intelligence in Geocomputation
- Mobility Human Across Different Classes

🏆 ACADEMIC ENGAGEMENTS

Reviewer, Geoscience Letters	SCI Q1
Reviewer, International Journal of Applied Earth Observation and Geoinformation	SCI Q1
Reviewer, Journal of Environment & Development	SCI Q1
Reviewer, Science of the Total Environment	SCI Q1
Reviewer, Transactions in Urban Data, Science and Technology	Domestic Journal
Reviewer, Transactions in GIS	SSCI Q2
Reviewer, Plos One	SCI Q1
Reviewer, IEEE Access	SCI Q2
Reviewer, International Journal of Crowd Science	EI
Reviewer, Environment and Planning B: Urban Analytics and City Science	SSCI SCI Q1
Reviewer, Journal of hydrology	SCI Q1
Reviewer, Climatic Change	SCI Q1
Reviewer, Transportation Research Part D: Transport and Environment	SCI Q1
Membership, Association for Computing Machinery	
Guest Chair Editor, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (IF: 5.5)	SCI Q1

📑 SOCIAL ACTIVITIES

1. Academic presentation at the 2019 China Public Security Congress, November 2019, Beijing, China.
2. Academic presentation at The 2nd International Conference on Urban Informatics, August 2023, Hong Kong, China.
3. Guest speaker at the Jianbai Academic Salon, No. 68, and the Surveying and Remote Sensing Star Lake Café, No. 28.
4. Guest speaker at the 288th Doctoral Salon of Wuhan University and the Future Spatiotemporal Salon of the National GIS Center, Third Session.
5. Personal academic WeChat Official Account, "Sensingcity," with over 10,000 followers and accumulated readings exceeding 500,000.