

Wenjing Gong

Ph.D. student
Urban and Regional Science
College of Architecture
Texas A&M University

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(Updated on 10/2025)

RESEARCH INTERESTS

- Urban Analytics, Urban Planning, GIScience, GeoAI
- Climate Resilience, Environmental Health, Public Health

EDUCATION

- 2024 – pres. Ph.D. Student, Urban and Regional Science**
Texas A&M University, College Station, USA
Advisor: Dr. Lingqian Hu and Dr. Xinyue Ye
- 2019 – 2022 M.E., Architecture (Urban Study)**
Tongji University, Shanghai, China
GPA: 88.5/100 (Entrance through the exam-free recommendation program)
- 2019 Visiting Student, Graduate School of Architecture, Planning and Preservation**
Columbia University, New York, USA
- 2014 – 2019 B.E., Architecture**
Shandong University of Science & Technology, Qingdao, China
GPA: 90.5/100 (Rank: 1/60 each year)

ACADEMIC & PROFESSIONAL EXPERIENCE

- 2025 – 2026 Student Ambassador**
Texas A&M Institute of Data Science, College Station, USA
- 2025 – 2026 Student Fellow**
Telehealth Institute, Texas A&M University, College Station, USA
- 2024 – 2025 Research Assistant**
Advisor: Dr. Xinyue Ye, Center for Geospatial Sciences, Applications and Technology,
Texas A&M University, College Station, USA
- 2022 – 2024 Designer and Planner**
Architecture Design & Research Institute of Tongji University, Shanghai, China

PEER-REVIEWED PUBLICATIONS

* Denotes corresponding author.

- 2025 **Gong, W.**, Ye, X., Wu, K., Jamonnak, S., Zhang, W., Yang, Y., Huang, X. Integrating Spatiotemporal Vision Transformer into Digital Twins for High-Resolution Heat Stress Forecasting in Campus Environments (Accepted in *Journal of Planning Education and Research*)

- 2025 Rui, J., Shao, C., Hu, Z., **Gong, W.**, Li, X. Prioritizing Scarcity or Equity? Quantifying Socioeconomic Synergies in Urban Green Satisfaction through Interpretable Geographical Machine Learning (Accepted in *Journal of Geographical Sciences*)
- 2025 Ye, X., Li, S., **Gong, W.***, Li, X., Li, X., Dadashova, B., Li, W., Du, J., & Wu, D. (2025). Street View Imagery in Traffic Crash and Road Safety Analysis: A Review. *Applied Spatial Analysis and Policy*, 18(2), 50. <https://doi.org/10.1007/s12061-025-09653-7>
- 2025 Ye, X., Yigitcanlar, T., Xu, Y., Head, M., Hang, Y., Sanchez, T., **Gong, W.**, & Niyogi, D. (2025). Urban planning and IPCC-like city assessments integration for climate-resilient cities. *Environment and Planning B*, 23998083251330940. <https://doi.org/10.1177/23998083251330940>
- 2025 Ye, X., Yigitcanlar, T., Goodchild, M., Huang, X., Li, W., Shaw, S.-L., Fu, Y., **Gong, W.**, & Newman, G. (2025). Artificial intelligence in urban science: Why does it matter? *Annals of GIS*, 0(0), 1–9. <https://doi.org/10.1080/19475683.2025.2469110>
- 2025 **Gong, W.**, Lee, C. S., Li, S., Adkison, D., Li, N., Wu, L., & Ye, X. (2025). Cyber victimization in hybrid space: An analysis of employment scams using natural language processing and machine learning models. *Journal of Crime and Justice*, 1–22. <https://doi.org/10.1080/0735648X.2024.2448804>
- 2024 **Gong, W.**, Rui, J., & Li, T. (2024). Deciphering urban bike-sharing patterns: An in-depth analysis of natural environment and visual quality in New York's Citi bike system. *Journal of Transport Geography*, 115, 103799. <https://doi.org/10.1016/j.jtrangeo.2024.103799>
- 2023 **Gong, W.**, Huang, X., White, M., & Langenheim, N. (2023). Walkability Perceptions and Gender Differences in Urban Fringe New Towns: A Case Study of Shanghai. *Land*, 12(7), 1339. <https://doi.org/10.3390/land12071339>

Selected Papers Under Review

- 2025 **Gong, W.**, Ye, X., Yigitcanlar, T., Leung, R., Zheng, Z. Extreme Heat and Urban Systems: A Review of Interactions and AI-Enabled Systemic Resilience Pathways (Submitted)
- 2025 **Gong, W.**, Ye, X., Wu, L., Zhu, C., Song, Y. Revealing Park Visitation under Dual Environmental Threats in a Socially Stratified City: Evidence from Smartphone Mobility Data in Dallas (Submitted)
- 2025 Rui, J., **Gong, W.** Paying lip service? An investigation into the spatial mismatch between younger and older adults' streetscape perceptual preference and visitation behavior (Submitted)
- 2025 Rui, J., **Gong, W.**, Qin, L. A geo-embedded graph neural network framework for ride-hailing demand: Interpretable modeling of spatiotemporal dynamics driven by street contextual features (Submitted)

PRESENTATIONS

Conferences

- 2025 **Gong, W.**, Ye, X., Wu, K., Jamonnak, S., Zhang, W., Yang, Y., Huang, X. Integrating Spatiotemporal Vision Transformer into Digital Twins for High-Resolution Heat Stress Forecasting in Campus Environments. *2025 Annual Meeting of American Association of Geographers*, March 24-28, 2025, Detroit, Michigan, USA (Oral).

- 2024 **Gong, W.**, Yang, Y., Zhang, W., Wu, K., Ye, X., Huang, X. Integrating high-resolution simulations and transformer network predictions for mitigating human heat stress: A digital twin of a Texas campus. *2024 Texas Weather Conference*, November 9, 2024, College Station, Texas, USA (Oral).
- 2024 **Gong, W.**, Yang, Y., Zhang, W., Wu, K., Ye, X., Huang, X. Integrating high-resolution simulations and transformer network predictions for mitigating human heat stress: A digital twin of a Texas campus. *College of Architecture's 26th Annual Showcase*, October 3, 2024, Texas A&M University, College Station, Texas, USA (Poster).
- 2024 **Gong, W.** Simulating and Predicting Spatial-Temporal Human Outdoor Heat Exposure: A Case Study on a Texas Campus. *The 2024 Symposium on Spatiotemporal Data Science: GeoAI for Social Sciences*, July 24, 2024, Virtual (Abstract accepted).

Workshops

- 2022 Gu, J., **Gong, W.**, Zhang, X. Analysis of the Spatial Distribution of Express Courier Stations and Assessment of Site Selection Effectiveness. *DigitalFUTURES 12th Summer Workshops*, July 2, 2022, Virtual (Oral).
- 2019 **Gong, W.**, Huang, H., Zhang, X. Undoing Sprawl: Urban Agriculture as a Social Innovation. *Resizing the Urban Form in the Era of "Negative Population Growth" Workshop*, December 9, 2019, Columbia University, New York City, USA (Oral).

AWARDS & HONORS

- 2025 Travel Grant, Summer School on Cyberinfrastructure and Disaster Resilience, TAMU (funded by NSF), \$200.
- 2025 Texas A&M Institute of Data Science (TAMIDS) Student Ambassador Scholarship, Domain Data Science Track (2025–2026 cohort), TAMU, \$2,000.
- 2025 Ashok K. Dutt Award for Best Graduate Student Paper (**1st place**), Regional Development and Planning Specialty Group, 2025 Annual Meeting of American Association of Geographers, \$200.
- 2025 UCGIS I-GUIDE 2024–2025 Community Champions, \$3,000 (Student leader; project under Dr. Xinyue Ye)
- 2025 Travel Grant, LAUP Department, TAMU, \$600.
- 2024 - 2025 Research Assistantship covering stipend and tuition, Center for Geospatial Sciences, Applications and Technology, TAMU.
- 2019 - 2022 Academic Scholarship covering all tuition fees, TJU.
- 2014 - 2019 First-class Scholarships in academic performance (5%, **8 times**), SDUST.
- 2014 - 2019 First-class Corporate Scholarships (5%, **2 times**), SDUST.
- 2014 - 2019 "Outstanding Student Pioneer" (5%, **3 times**), SDUST.
- 2019 "Outstanding Graduate" of Shandong Province (5%).
- 2019 "Outstanding Student" in Science, Technology, and Innovation (5%), SDUST.
- 2018 Gold Award, SINO-JAPAN Art & Design Exchange Exhibition.
- 2018 National Best Leader Award, National Green Building Design Competition.
- 2018 Grand Prize, National Green Building Design Competition - Deep Green Category.

2018	First Prize, The Fourth Academy Award National Art and Design Exhibition.
2018	Gold Award, Chinese Creative Design Annual 2016/2017.
2018	Silver Award, The Third Bauhaus Award International Design Competition.
2018	Bronze Award, Exhibition of Architectural Design in Developing Countries.
2018	Excellent Award, Shandong Province College Student Construction Design Competition.
2017	Excellence Award, China Architectural Education/TSINGRUN Award Students' Paper Competition.
2017	Bronze Award, The 3rd Mainland, Taiwan and Hong Kong Design Invitation Exhibition.
2017	Second Prize, National Green Building Design Competition - Green Category.
2016	Excellent Award, National Green Building Knowledge Competition for Youth Students.
2016	Excellent Market Potential Award, Lion Award International Industrial Design Competition – “Innovative Application Design Group: Industrial Robot Systems”.

TEACHING EXPERIENCE

Teaching Assistant

2025 Fall PLAN626: Advanced GIS, Texas A&M University, College Station, USA

2020 Fall Design Studio III (Urban Planning), Tongji University, Shanghai, China

SERVICES

Invited Reviewer

- International Journal of Geographical Information Science
- Journal of Transport Geography
- Journal of Planning Education and Research
- Applied Spatial Analysis and Policy
- Computational Urban Science

Editorial Boards

- Managing Editor: Computational Urban Science

Conference Organizations

- Session Chair/Primary Organizer: Symposium on Human Dynamics Research: Urban Environmental Intelligence and Human-Climate Interactions. *2025 Annual Meeting of American Association of Geographers*, March 24-28, 2025, Detroit, Michigan, USA.

MEDIA COVERAGE

- Throwing Shade at Heatwaves: Tracking campus “hot spots” could help students stay cool in the Texas heat. <https://engineering.tamu.edu/news/2024/09/throwing-shade-at-heatwaves.html>

SKILLS

- **Programming:** Python (Data Processing, Visualization, and Analysis), SQL, HTML

- **Machine Learning/Deep Learning:** Agentic AI, Computer Vision (Semantic/Instance Segmentation), Time series Forecasting (LSTM, Transformer), Tree models, Explainable AI (SHAP)
- **Spatial Data Analysis:** ArcGIS Pro, QGIS, Geoda, MGWR 2.2, Google Earth Engine
- **Urban Climate Simulation:** SOLWEIG, Envi-met
- **Design and Planning:** AutoCAD, SketchUp, Rhino, Photoshop, Illustrator, InDesign, Enscape, Lumion