

Changlong Ling

Ph.D. Student in AI & Urban Transportation at University of Washington

<https://changlongling.github.io/>

clling@uw.edu | [Google Scholar](#) | [LinkedIn](#) | [ResearchGate](#) | [ORCID](#)

Box 355740, 1410 NE Campus Pkwy, Seattle, WA 98195, US

EDUCATION

University of Washington, Seattle, WA, US

Interdisciplinary Ph.D. in Urban Design and Planning

Sep 2024~Now

M.S. in Statistics (Machine Learning and Big Data Track)

Sep 2025~Now

Peking University, Beijing, China

M.S. in Urban Planning, GPA: 3.86/4.0

Jun 2024

Wuhan University, Wuhan, China

B.Eng. in Urban Planning, School of Urban Design, GPA: 3.89/4.0

Jun 2021

B.A. in Economics, School of Economics and Management

Jun 2021

RESEARCH INTERESTS

My research interests are in developing artificial intelligence (AI) algorithms and statistical/data science methods to support the integration of *automated*, *decarbonized*, and *digitalized* technologies into future mobility systems. I utilize responsible, explainable, generative, and geospatial AI to enhance the **economic effectiveness**, **systematic smartness**, and **environmental sustainability** of cities and transportation, ultimately informing more equitable public policies.

My current research topics include, but are not limited to:

- **Automated and Sustainable Transportation:** Autonomous Vehicles for Public Transit, Transportation Decarbonization & Traffic Safety
- **Digital Economy and Smart Cities:** Remote Work, Urban Sustainability, Transit-Oriented Development, Spatial Optimization & Urban Networks
- **Artificial Intelligence and Causal Inference:** Explainable Artificial Intelligence, Causal Machine Learning, GeoAI, Spatial Econometrics & Statistical Inference

SELECTED PUBLICATIONS

1. Ling, C., Chen, Z.*, Yang, J., & Yang, T. [Evaluating Inclusive Transit-Oriented Development with Location Affordability and Its Influencing Factors](#). *Transportation Research Part A: Policy & Practice*, 2025, 201: 104672.
2. Ling, C., Xie, B.*, & An, Z.* [Traffic Safety in Relation to Multidimensional Street Network and Land Use Features: A Nonlinear Analysis with Population Heterogeneity](#). *Applied Geography*, 2025, 185: 103737.
3. Ling, C., Tang, J.*, Zhao, P., Xu, L., Lu, Q., Yang, L., Huang, F., Lyu, W., & Yang, J. [Unraveling the Relation between Carbon Emission and Carbon Footprint: A Literature Review and](#)

[Framework for Sustainable Transportation](#). *npj Sustainable Mobility and Transport*, 2024, 1(13).

4. **Ling, C.**, Niu, X., Yang, J., Zhou, J., & Yang, T.* [Unraveling Heterogeneity and Dynamics of Commuting Efficiency: Industry-level Insights into Evolving Efficiency Gaps based on a Disaggregated Excess-Commuting Framework](#). *Journal of Transport Geography*, 2024, 115: 103820.
5. **Ling, C.*** & Liu, Z. High-density Cities and Compact Development: Sino-foreign Comparisons and Implications. *Urban Planning International*, 2024, 39(2): 1-8. (in Chinese)
6. **Ling, C.** Coupling and Planning Implications of Street Centrality and Life Services Industry Clusters: A Case Study of Wuhan. *Urban-Rural Planning*, 2023, 5: 106-114. (in Chinese)
7. Zhou J., & **Ling, C.*** Study on Temporal Variations of Network Connectivity and Degree Centrality in the Middle of the Yangtze River (2001-2016). *Resources and Environment in the Yangtze Basin*, 2021, 30(3): 544-553. (in Chinese)
8. Huang, Y., **Ling, C.**, Yang, J.*, & Zeng, E. Inclusive Home-Based Community Elderly Care Services: Implication of the Japan's "Retail Facility + Elderly Care" Model. *Urban Planning International*, 2025. (in Chinese)
9. Yang, J.*, **Ling, C.**, & Li, J. Hypothesizing "Shenzhen – Hong Kong Metropolitan Area" based on Commuting Linkage and Institutional Change. *Urban Development Studies*, 2024, 31(12):67-76. (in Chinese)
10. Xie, B., **Ling, C.**, & Wang, L.* Research on the Impacts of Urban Street Patterns on Traffic Safety: A Case Study of Wuhan city. *China City Planning Review*, 2022, 46(8): 75-83. (in Chinese)
11. Xie, B., Chen, X., **Ling, C.**, Li, X., & Wei, W.* Exploring the Health-Seeking Travel Behaviors and Constraints of COVID-19 Patients in Wuhan, China. *Urban Development Studies*, 2021, 28(3): 18-26+49. (in Chinese)
12. Ma, Y., **Ling, C.**, & Wu, J.* Exploring the Spatial Distribution Characteristics of Emotions of Weibo Users in Wuhan Waterfront based on Gender Differences using Social Media Texts. *ISPRS International Journal of Geo-Information*, 2020, 9(8), 465.

SELECTED AWARDS & HONORS

Hubert M. Blalock Fellowships , University of Washington (~5%)	2024
University Provost's Fellowships, University of Washington	2024
Excellent Graduates , Peking University	2024
Merit Students, China Ping An AI-Bank Scholarships, Peking University	2022
Excellent Graduates , Wuhan University	2021
"Top 10 LuoJia Fengyun Students" Top 20 Candidates, Wuhan University (0.1%)	2021
Lei Jun Scholarships , Pacemaker to Merit Student, the highest in Wuhan University (0.1%)	2020
First Prizes, WUPEN iCity Urban Sustainability Reports	2020
First-level scholarships, Merit Students, Wuhan University	2019 & 2020
National Scholarships , Ministry of Education, P.R. China (0.5%)	2019
Second Prizes, Urban Planning & Design Group, YUANYE Awards	2019

PROFESSIONAL EXPERIENCES

<i>Graduate Teaching Assistant</i> , University of Washington, Seattle, WA, US	Sep 2025~Now
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- URBAN 404/504 Introduction to GIS, Autumn 2025, Instructor: Prof. Karen T. Chen

Graduate Research Assistant, University of Washington, Seattle, WA, US Sep 2024~Now

- Working on Cost-Effectiveness Evaluation of Autonomous Vehicles for on-Demand Mobility, Advisor: Prof. Qing Shen

Graduate Research Assistant, Peking University, Beijing, China Sep 2021~Jun 2024

Focusing on three real and funded projects, Advisors: Prof. Jiawen Yang & Junqing Tang

- Decoding the Mechanism of Transport-coordinated Development in Greater Bay Area (SZ R&D)
- Transportation Planning, Territory Spatial Planning of Heyuan (2021-2035) (Practice)
- Transportation Planning, Improving Road Traffic Safety in Jiangdong New Town, Heyuan

Graduate Research Assistant, The University of Hong Kong, Hong Kong Sep 2022~Apr 2023

- Using location-based service (LBS) big data to trace and optimize urban commuting networks (NSFC), Instructor: Prof. Tianren Yang

Intern GIS Analyst, Shenzhen New Land Tool Planning & Architectural Design Co., Ltd., China

- Territory Spatial Planning of Dongkeng Town, Dongguan City (2020-2035) Jun 2020~Jul 2020

PROFESSIONAL SERVICES

Journal Reviewer

- Transportation Research Part D: Transport & Environment,
- Transport Policy

Membership

- Association of Collegiate Schools of Planning (ACSP, 2024-)
- International Association for China Planning (IACP, 2025-)