

# Changlong Ling

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

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## EDUCATION

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### 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 (2%)

Jun 2024

### Wuhan University, Wuhan, China

B.Eng. in Urban Planning, School of Urban Design, GPA: 3.89/4.0 (2%)

Jun 2021

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

Jun 2021

## RESEARCH INTERESTS

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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

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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, 183: 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.  
[Nomination Award for the 15th Qian Xuesen \(钱学森\) Urban Studies Gold Award](#)
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

<b>Nomination Award for the 15th Qian Xuesen (钱学森) Urban Studies Gold Award</b>	2025
<b>Hubert M. Blalock Fellowships</b> , University of Washington (~5%)	2024
University Provost's Fellowships, University of Washington	2024
<b>Excellent Graduates</b> , Peking University	2024
Merit Students, China Ping An AI-Bank Scholarships, Peking University	2022
<b>Excellent Graduates</b> , Wuhan University	2021
"Top 10 LuoJia Fengyun Students" Top 20 Candidates, Wuhan University (0.1%)	2021
<b>Lei Jun Scholarships</b> , 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
<b>National Scholarships</b> , Ministry of Education, P.R. China (0.5%)	2019
Second Prizes, Urban Planning & Design Group, YUANYE Awards	2019

## PROFESSIONAL EXPERIENCES

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*Graduate Teaching Assistant*, University of Washington, Seattle, WA, US Sep 2025~Now

- 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 & Prof. 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

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### 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-)