

CHANGLONG LING

Ph.D. Student, Urban Transportation, University of Washington

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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), GPA: 3.51/4.0 Sep 2024~Now

Peking University, Beijing, China

M.S. in Urban Planning, GPA: 3.86/4.0 Sep 2021~Jun 2024

Wuhan University, Wuhan, China

B.Eng. in Urban Planning, School of Urban Design, GPA: 3.89/4.0 Sep 2016~Jun 2021

B.A. in Economics, School of Economics and Management Feb 2018~Jun 2021

RESEARCH INTERESTS

Urban Artificial Intelligence (AI): My work aims at advancing *responsible*, *explainable*, and *generative* AI to empower *urban governance* in *smart cities* using multimodal spatial-temporal big data and surveys

- **AI for Autonomous Sustainable Transportation and Human Mobility:** Autonomous Vehicles for Public Transit, Transportation Decarbonization, Traffic Safety, & Human Mobility × Deep Learning
- **AI for Digital Economy:** Digital Life, Work from Home × Causal Machine Learning & (Spatial) Econometrics
- **AI for Inclusive Urban and Regional Development:** Transit-Oriented Development, Regional Integration, & Inclusive Cities × Networks & Spatial Optimizations

SELECTED PUBLICATIONS

Full list: [Google Scholar](#); * Corresponding author

1. 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)
2. **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](#). *Nature npj Sustainable Mobility and Transport*, 2024, 1(13).
3. **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.
4. **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)

5. 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)
6. Xie, B., **Ling, C.**, & Wang, L.* Research on the impacts of urban street patterns on traffic safety: A case study of Wuhan city. *City Planning Review*, 2022, 46(8): 75-83. (in Chinese)
7. 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)
8. 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)
9. 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
National Encouragement Scholarships, Ministry of Education, P.R. China	2017 & 2018

PROFESSIONAL EXPERIENCES

Graduate Teaching Assistant , University of Washington, Seattle, WA, US	Sep 2025~Dec 2025
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Working on Cost-effectiveness of Autonomous Vehicles for on-Demand Mobility, Advisor: Prof. Qing Shen 	
Graduate Research Assistant , Peking University, Beijing, China	Sep 2021~Jun 2024
<ul style="list-style-type: none"> Focusing on three real projects funded by local governments, Advisors: Prof. Jiawen Yang & Junqing Tang <ul style="list-style-type: none"> Decoding the Mechanism of Transport-coordinated Development in China’s Greater Bay Area (SZ R&D) Transportation Planning, Territory Spatial Planning of Heyuan City (2021-2035) (Practice) Transportation Planning, Improving Road Traffic Safety in Jiangdong New Town, Heyuan City (Practice) 	
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., Shenzhen, 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-)

PROFESSIONAL SKILLS

Language	English (Fluent), Chinese (Native)
Programming	Python (PyTorch, SK-Learn); R, MATLAB; STATA, SPSS; SQL; LaTeX; VB, C/C++
AI & ML	DL (Transformer, CNN, RNN, LSTM); XAI (SHAP, PDP, ALE) ML (RF, GBDT, XGBoost, LightGBM; SVM, kNN, Naïve Bayes; PCA, K-Means, DBSCAN) Multi-Objective Optimization, NSGA II/III
Statistics	Discrete Choice Model, PSM-DID, Structural Equation Model; (M)G(T)WR, Spatial Durbin Model; GLR, ARIMA; DEAs (CCR, BCC, SBMU)
Spatial & Network	ArcGIS, QGIS; ENVI; GeoDa, sDNA, UCINET, Gephi, CiteSpace, VOSviewer, Fragstats
Planning & Design	Sketch-Up, AutoCAD, Adobe Photoshop/Illustrator/InDesign/Premiere