Zhang ChengBo

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Research interests: Urban computing, Mobility, Spatiotemporal data mining, GeoAI

EDUCATION

Master of Urban planning 2023-2025

Harbin Institute of Technology (Shenzhen)

- Awarded the First-class academic scholarship

B.E. in Urban and rural planning 2018-2023

Xiamen University

- Awarded the Merit Student honor for three consecutive years
- Awarded National Encouragement scholarship for three consecutive years

PUBLICATION

- Xiao, Z., **Zhang, C.***, Li, Y., & Chen, Y. (2024). Community park visits determined by the interactions between built environment attributes: An explainable machine learning method. Applied Geography, 172, 103423. https://doi.org/10.1016/j.apgeog.2024.103423

WORKING PAPERS

Travel behavior and environment

- **Zhang, C.,** Yang, X, Xiao, Z.*, Uncovering Spatial Patterns of Environmental Influence on the Paces of Active Leisure Travel (Under review in *Cities*)
- **Zhang, C.,** Xiao, Z.*, Integrating Variable Importance and Spatial Heterogeneity to Reveal the Environmental Effects on Outdoor Jogging (Under review in *International Journal of Sustainable Transportation*)
- Xiao, Z., Li, Y*., **Zhang, C.,** Impact of Spatial Function Complementarity on Outshopping Flows: A Spatial Interaction Model (Under review in *Travel Behavior and Society*)

Spatial interaction network in instant delivery

- **Zhang, C.,** Li,Y., Xiao, Z*. Uncover the Dynamic Community Structure of Instant Delivery Network (Manuscript in preparation)
- **Zhang, C.,** Wang,C., Li,Y., Xiao, Z*. MSI-GCN: Multi Spatial Interaction Graph Convolutional Networks for Instant Delivery Flow Prediction (Manuscript in preparation)

WORK EXPERIENCE

Research Assistant May. 2024 - Now

Peking University Shenzhen Graduate School

- Using heterogeneous graph learning to predict instant delivery flows between urban units.

Data analysis intern

CitoryTech Company (citory.tech) Dec. 2022 - Feb. 2023

- Analyzed DazhongDianping POI and street view image data to assess travel attractiveness of tourist attractions in Jiangsu Province.

Intern planner Jul. 2022 - Nov. 2022

Smart City Center, Beijing Tsinghua Tongheng Urban Planning & Design Institute (THUPDI)

- Processed mobile signal data to depict and analyze the commuting structure in Beijing.

Digital planning intern Jul. 2021 - Sept. 2020

Planing Technology Department of Xiamen Research Center of Urban Planning Digital Technology,

- Utilized street view image data and deep learning to evaluate the street quality in Xiamen

CONFERENCE PRESENTATION

- Dynamical Community Detection and Spatiotemporal Analysis based on Multilayer Instant Delivery Network. *European Transportation Conference.* Antwerp, Belgium. September 2024.
- Examine the nonlinear and interactive effects of built environment on community park visits. *The 5th National Forum on Computational Social Science. Shenzhen, China.* November 2023.

PROJECTS AND AWARDS

Digtal life circle shaped by instant delivery: dynamic community structure and graph deep learning prediction

- Awarded **First Prize** in the 2024 Chengyuan Cup Planning Decision Support Model Design Competition (as ***team leader, first contributor***).
- Awarded **First Prize** in the 2024 Geoscene GIS Development Competition (as ***team leader, first contributor***).

MSI-GCN: Multi Spatial Interaction Graph Convolutional Networks for instant delivery demand prediction

- Awarded **First Prize** in The 2024 National College Student Statistical Modeling Competition in Guangdong competition division and **Third Prize** in national competition (as ***team leader, first contributor***).

Future smart city design: A case in Maqiao-Shanghai district

- Awarded the **100 Best prize** in the City Design track at the Digital China Innovation Contest, 2022 (as ***team leader, first contributor***).
- Awarded the **Nomination Award (Second Prize)** in the WUPENicity International Urban Design Competition, 2022 (as ***team leader, first contributor***).

Comprehensive assessment of street quality and vitality based on street view image and POI data

- Awarded the **Inclusion Prize** in the Xiamen Big Data Security and Open Innovation Application Contest, 2021 (as ***team leader, first contributor***).

Peitian-Longyan village development planning

- Received the **Commendation Award** in the National College Student Rural Planning Scheme Competition for the year 2020 (as *one of the contributors*).

SKILL

- Python (pandas/ matplotlib/ scikit-learn/ pyTorch/ DGL)
- LLM (Llama 3/ GPT/ GLM/ LLM Agent)
- R/ Stata
- QGIS/ArcGIS
- Adobe Creative Suite/ Microsoft Office Suite