

# Mushu Zhao

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Department of Urban Planning and Design  
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## EDUCATION

- 2021 – Now      **Ph. D. candidate, Urban Planning and Design**  
The University of Hong Kong, Hong Kong SAR, China
- 2019 – 2020      **MSc., Applied Geographic Information System**  
National University of Singapore, Singapore, Singapore
- 2015 – 2019      **BSc., Geographic Information Science**  
Sun Yat-sen University, Guangzhou, China

## ACADEMIC EMPLOYMENT

- 2024              Part-time Senior Research Assistant, Department of Urban Planning and Design,  
The University of Hong Kong
- 2020 – 2021      Full-time Research Assistant, Landscape Ecology Research Group, Guangzhou  
Institute of Geography
- 2019              Part-time Research Assistant, Department of Geography, National University of  
Singapore

## RESEARCH INTERESTS

Environmental Sustainability Associated with Urbanization and Transportation,  
Transportation Electrification and Green Mobility Solutions,  
Urban Heat Events: Impacts and Interactions with Public Transit and Active Travel,  
Green Infrastructure and Environmental Justice

## AWARDS AND HONORS

- 2024              Third Place Award, 2024 CPGIS Student Paper Competition, *The International Association of Chinese Professionals in Geographic Information Sciences*
- 2023              First Place Award, 2023 United Nations Datathon China Division, *the United Nations Statistics Division (UNSD), the United Nations Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)*
- 2021              HKU Foundation Postgraduate Fellowship, *The University of Hong Kong*
- 2017-2018        Third Place Award, Outstanding Student Scholarship, *Sun Yat-sen University*

## Publications

### Refereed Journal Articles

- 2025              **Zhao, M.**, Wang, D. & Li, W. (2025). Idle Occupancy and Dead Piles: New Challenges in Public Charging Station Promotion. *Annals of GIS*, 1-21.
- 2024              **Zhao, M.**, Wang, D., Li, W., & Liu, J. (2024). Unraveling influencing factors of public charging station utilization. *Transportation Research Part D: Transport and Environment*, 137, 104506.

- 2024 Hu, Y., **Zhao, M.**, & Zhao, Z. (2024). Uncovering heterogeneous effects of link-level street environment on e-bike and e-scooter usage. *Transportation Research Part D: Transport and Environment*, 136, 104477.
- 2020 Tran, P. T., **Zhao, M.**, Yamamoto, K., Minet, L., Nguyen, T., & Balasubramanian, R. (2020). Cyclists' personal exposure to traffic-related air pollution and its influence on bikeability. *Transportation Research Part D: Transport and Environment*, 88, 102563.

### Manuscripts in Submission

- [1] **Zhao, M.**, Wang, D. & Li, W. Extreme Weather, Charging Rate and Moderating Effect of Station Shelters. under review
- [2] **Zhao, M.** & Li, W. Carbon Emission Reduction and Spill-over Effects of High-speed Rail: Empirical Analysis Based on Prefectural Cities in China. under review
- [3] **Zhao, M.**, Lei, S. & Li, W. Incorporating Urban Thermal Comfort into TOD Planning: Non-linear Heterogeneous Built Environment Effects. under review
- [4] **Zhao, M.**, Lei, S., Li, S. & Li, W. Disparities in the Impacts of Extreme Heat Events on Subway Ridership: Evidence from New York City
- [5] Lei, S., **Zhao, M.** & Zhou, J. Rethinking the X-minute City for Older Adults: Insights from Travel Survey through the Lens of Maslow's Hierarchy of Needs

## PRESENTATIONS (†PRESENTING AUTHOR)

### Papers Presented at Professional Meetings

- 2024 Zhao, M.†, Wang, D. & Li, W. Extreme Weather, Charging Rate and Moderating Effect of Station Shelters. ACSP2024, November 7-9, Seattle, WA
- 2024 Zhao, M.†, Wang, D. & Li, W. Idle Occupancy and Dead Piles: New Challenges in Public Charging Station Promotion. *The 31st International Conference on Geoinformatics*, August 14-16, Toronto, Canada
- 2024 Zhao, M.† & Li, W. Incorporating Urban Thermal Issues into TOD planning: Investigating the Non-linear Built Environment Effects on Pedestrian Heat Exposure. *The 18th International Association for China Planning (IACP) Conference*, July 5-7, Hangzhou, China

### Poster Presentations

- 2023 Zhao, M.† & Li, W. Considering Urban Heat in Transit-oriented Development Planning: A Perspective of Station-level Heat Exposure in New York City Subway. *11th International Conference on Urban Climate*, August 28–September 1, Sydney, Australia

## TEACHING

### The University of Hong Kong

- 2023-2024 URBA 6011: Programming and Foundations in Urban Data Analysis (Master of Science in Urban Analytics Programme -Autumn 2023)
- URBS 4005: Development Scenarios and Impact Assessment Studio (Bachelor of Arts in Urban Studies Programme-Autumn 2023)
- 2022-2023 URBA 6011: Programming and Foundations in Urban Data Analysis (Master of Science in Urban Analytics Programme -Autumn 2022)

## **SKILLS**

**Programming Languages:** Python, R, MATLAB, C/C++, JavaScript, Stata

**Geospatial Software:** ArcGIS Pro, QGIS, ENVI