Mushu Zhao

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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, <i>The International Association of Chinese Professionals in Geographic Information Sciences</i>
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. <i>Annals of GIS</i> , 1-14.
2024	Zhao, M. , Wang, D., Li, W., & Liu, J. (2024). Unraveling influencing factors of public charging station utilization. <i>Transportation Research Part D: Transport and Environment</i> , 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.
- 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 Highspeed 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

- Zhao, M.†, Wang, D. & Li, W. Extreme Weather, Charging Rate and Moderating Effect of Station Shelters. ACSP2024, November 7-9, Seattle, WA
- 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
- 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

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