Yuhan Xu

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#### **EDUCATION**

Southeast University, China	M.S. Landscape Architecture	90.68/100	09/2022-Present
Southeast University, China	B.S. Landscape Architecture	89.29/100	09/2017-06/2022

#### **Research Interests**

Landscape and urban planning, sustainable development, urban ecology, machine learning application

### **PUBLICATIONS**

- **Xu, Y.**, & Tang, J. (2024). Examining the rationality of Giant Panda National Park's zoning designations and management measures for habitat conservation: Insights from interpretable machine learning methods. <u>Science of The Total Environment</u>, 170955.
- **Xu, Y.**, Ma, X., Pan, M., & Jiang, K. (2022). A two-stage simulation approach of urban transport emission evaluation towards carbon peak: A case study in Suzhou, China. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 10, 285-292.
- Rui, J., & Xu, Y. (2024). Beyond built environment: Unveiling the interplay of streetscape perceptions and cycling behavior. *Sustainable Cities and Society*, 109, 105525.
- Yuan, Y., Gan, Y., Xu, Y., Xie, Q., Shen, Y., & Yin, Y. (2022). SWMM-based assessment of urban mountain stormwater management effects under different LID scenarios. *Water*, 14(1), 78.

# RESEARCH EXPERIENCES

## The University of Hong Kong

04/2024-Present

# Research Assistant, Department of Urban Planning and Design

Advisor: Prof. Tianren Yang

- Calculated ecosystem service demand using high-resolution location-based service data.
- Applied k-means clustering to categorize GBA regions based on ecosystem service supply-demand ratio and socioeconomic characteristics.
- Utilized the production possibility frontier concept to understand the tradeoffs between eco-environmental well-being and socio-economic well-being performance in the GBA.
- In Preparation: Xu, Y., & Yang, T. Can we have it all? Evaluating environmental and socioeconomic tradeoffs in the Guangdong-Hong Kong-Macao Greater Bay Area, China.

# > Southeast University

09/2022-Present

### Graduate researcher, Department of Landscape Architecture

Advisor: Prof. Jun Tang

- Contributed to two comprehensive plans for scenic areas, a type of protected areas, in China, gaining insights into the conflicts between environmental conservation and economic development.
- **Under Review: Xu, Y.**, & Tang, J. Urban edges, conservation frontiers: Buffer zone planning and management around urban protected areas Insights from Chinese national-level scenic areas. *Landscape* and *Urban Planning*.

- Proposed a universal land assessment framework for the peripheral zones of urban scenic areas.
- **Master Thesis in Preparation:** A study on land assessment in the peripheral zones of urban scenic areas based on ecosystem services.

## > Southeast University

12/2021-06/2022

## Undergraduate researcher, Department of Urban Planning

Advisor: Prof. Xiaosu Ma

- Identified the impact of land use structure and public service facility distribution on transport-related carbon emissions through a two-stage simulation approach and correlation analysis utilizing XGBoost.
- Under Review (Major Revision): Ma, X., Xu, Y. (Corresponding Author), Pan, M., & Jiang, K. Rethinking public service facility distribution and management strategies with the consideration of carbon peak Insights from Suzhou, China. *Journal of Cleaner Production*.
- Evaluated urban street vitality quality based on pedestrians' visual and auditory perception using semantic segmentation and expert assessment.
- Under Review: Xu, Y., & Ma, X. A study of street vitality based on visual and auditory perception: A case study of historic urban area in Guangzhou, China. *The International Review for Spatial Planning and Sustainable Development*.
- ➤ Under Review (Major Revision): Rui, J., Xu, Y., & Liu X. Destignatizing urban villages by examining their attractiveness: Quantification evidence from Shenzhen. *Habitat International*.

#### CONFERENCE PRESENTATIONS

- > 60th World Congress of the International Federation of Landscape Architecture (Istanbul, Türkiye)
  - Deciphering Anthropogenic Influences on Habitats: Implications from Interpretable Machine Learning (Accepted: Oral Presentation)
- > International Conference 2023 on Spatial Planning and Sustainable Development (Kanazawa, Japan)
  - A Study of Street Vitality Based on Visual and Auditory Perception: A Case Study of Historic Urban Area in Guangzhou, China

### **HONORS AND GRANTS**

Qi Kang Scholarship and Grant (CNY 5,000)	2023-2024
Second Prize   Chinese University Data-driven Innovation Competition (CNY 10,000)	2022
Southeast University President Scholarship (CNY 5,000)	2018-2019

#### **SKILLS**

Design	Rhinoceros (basic Grasshopper), Photoshop, Indesign, Lumion
Quantitative analysis	Spatial analysis (ArcGISPro, Arcpy), Python (pandas, geopandas, machine learning, basic deep learning)
Languages	Native Mandarin Chinese, Fluent English (TOEFL iBT - Score: 101/120, GRE General Test - Score: 326+4.5)