

Guanhong Li

guanhong.li.edu@outlook.com

86-15205916166

SUMMARY

My studies are focusing on urban-rural dynamics and environmental justice. The research now centers on spatial-temporal relationships of green equity and urban vitality from the perspective of coordinated development of urban and rural areas.

EDUCATION

Architectural Association School of Architecture

Sep. 2023 – Jan. 2025

Master of Architecture in Landscape urbanization

Dissertation: Water-Neutral City: Game-Based Digital Participatory Planning using Large Language Models

Core Courses: Models, methods and concepts of Landscape, The Rhetoric of mapping, Territorial Formations, Carto-Genesis, World-Ecology & Policy Design

Huaqiao University

Sep. 2017 – Jun. 2022

Bachelor of Engineering in Urban and rural planning

GPA: 3.5/5.0

Dissertation: Site Selection of Nucleic Acid Monitoring Points Based on Multi-source Data and Open Space: A Case Study of Nan'an She Er Village, Quanzhou

Core Courses: Social research method, Principle of city planning, Applied GIS in city planning, Introduction to area planning.

Research and Publication

G.H. Li, Xukai Zhao, Rico Carranza, E. (2025). VLM-ParkEval: Evaluating Urban Park Perception Through Social Media Data for Accessibility, Usability, and Attractiveness. *Ecological Indicator*. (In process).

- Utilized OpenAI's GPT-4o model with vision, we explored LLM's ability to auto label dataset and classify social media data from different dimensions, expanding the scope of evaluable dimensions.
- Compared the LLM's evaluation and former approaches that require a corpus. And analyzed the seasonal variation of people's focus of environment element, comparing the result with Named Entity Recognition (NER).

G.H. Li, M.Z. Chen (2025). Developing a Comprehensive Green View Index: Using 3D modeling and Street View Imagery for Urban Greenery Assessment from Street-level and Building-level. *Computers, Environment, and Urban Systems*. (In process).

- Leveraged Neural Radiance Field's (NeRF) capability to generate 3D point cloud models and render photo-realistic scenes, thereby infer images from unseen viewpoints to improve data availability for floor-level green visibility.

G.H. Li, K.J. Luo, S.H. Wang, J.Y. Li, R.J. Tian (2025). Urban Growth Boundaries Prediction Using Stable Diffusion and ControlNet: A Case Study of Chengdu. *Catalytic Interfaces: The 21st International Conference, CAAD Futures 2025*. (Abstract Accepted).

- Used seven built environment and environmental factors as image input and five built environment and socio-economic factors as text input. This combination of factors effectively drives and constrains urban growth predictions.

Rico Carranza, E., **G.H. Li**, Huang, S.-Y (2025). **LLM Planning Agents: Exploring the Potential and Challenges of Large Language Model Agents in Urban Design and Planning. *The 30th International Conference of the Association for ComputerAided Architectural Design Research in Asia (CAADRIA)*. (Accepted).**

- Instructed Large Language Models powered agents to do web scraping about constraints on planning and water management, subsequently evaluating the adequacy of a proposed project in Chichester.

- Compared ten different LLMs' robustness in two different types of agentic framework – roundtable and sequential in planning tasks.
- Implemented two different types of prompts – straightforward and creative on LLMs with different parameters to determine whether the introduction of "unexpected" elements leads to more innovative solutions.

G.H. Li (2024). Water-Neutral City: Game-Based Digital Participatory Planning using Large Language Models.

<https://issuu.com/aalandscapeurbanism> (In process).

- Collaborated with the Chichester local government to develop an interactive game where players act as officials to implement policies on map, thereby collecting people's spatial need for various policies.
- AI-powered NPCs guide players on policy decisions, while gameplay data is used in a multi-agent system to simulate negotiations and suggest targeted policies.

J.L. Zhuang, **G.H. Li**, H. Xu, J.T. XU, R.J. Tian (2024). **Text-to-City: Controllable 3D Urban Block Generation with Latent Diffusion Model.** In *ACCELERATED DESIGN, Proceeding of the 29th International Conference of the Association for ComputerAided Architectural Design Research in Asia (CAADRIA) 2024*, vol.2, pp. 169-178.

- Pushed the boundary of diffusion model, by incorporating indicators like building density, and floor area ratio and their corresponding urban block depth images.
- The result indicates that diffusion model can learn three different kinds of urban texture, do inpainting and outpainting on existing context, and reserve roof characteristics after extruding depth image into 3d models.

WORK EXPERIENCE

Xiamen Urban Planning and Design Institute

Jun. 2021 - Sep. 2021

Assistant Planner

- Editing Draft for Soliciting Opinions on the Land Spatial Planning of Linxia Prefecture – Finalizing report.
- Editing Trial Development Plan and Feasibility Study Review of Infrastructure for Longhu Bay Area in Shunchang County – Finalizing report.
- Report on the Comprehensive Renovation and Development Strategy of Siming District - Demolition Cost Estimation.
- Recommended Plan for Xiamen Urban Rail Transit Network - Mapping.

Xiamen Ludao College Street Dance Competition

Jul. 2021 - Jun. 2022

Planner

- The captain of Xiamen's largest street-dance club, Devotion Crew.
- Event Organizer of Dance to LuDao from Vol 1.0 to 3.0.
- United university dancers across the city, organizing sessions, rookie battles, and founding "Dance to LuDao," uniting dancers from seven schools—a collaboration that continues today.

Putian Jordan American Language School

Jul. 2017 - Sep. 2018

- English language teaching assistant

Awards and Honors

The 13th Real Estate Planning Competition, Huaqiao University

Oct. 2021

- Excellent Planner Prize

CSDA National Cheerleading Competition

May. 2021

- Champion

China University Sports Association National Street Dance Competition

Dec. 2020

- 7th Award

School of Architecture, Huaqiao University

Dec. 2018

- Second-class Scholarship

Workshops and College Activities

The 29th International Conference of the Association for Computer Aided Architectural Design Research in Asia (CAADRIA), Singapore	Apr. 2024
• Reporter	
GreenTech Days meet Future of Building 2024, Vienna	Apr. 2024
• Reporter	
• Researched on topics: Sustainable urban design; Collection of Big Data in Community Engagement and Education Based Urban Policy and Decision Making; Artificial Intelligence Aided Urban and Rural Planning.	
Architectural Digital Futures 2023 Conference	July. 2023 - Jun. 2024
• Participated in the project: Campus Sensing-Powered by Multi-Dimensional Imagery Data, GIS, and Deep Learning.	
• SVI data collection and preprocessing, Visual Geometry Group network for image scoring, YOLOv5 for image calculation.	
Physical Education College, Huaqiao University	Dec. 2020
• Athlete in the Sunshine Group	
Devotion Crew Street Dance Club	2019 - 2022
• Leadership	
FISU World University 3X3 Basketball Tournament	Nov. 2019
• Volunteer	

Other Information

English: IELTS 7.0

Technical Skills: Python, Houdini, ArcGIS, Rhino&Grasshopper, Davinci, Unreal Engine, Godot, Blender, Html&CSS.