Xuefei Qin

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Research interest: GeoAI for Spatial Analytics and Modeling, AI-Generated Content, Urban Computing

EDUCATION

University of Edinburgh 09/2020 - 11/2021

- M.S. in Urban Strategies and Design GPA:66/100 (With Merit)
- Relevant Courses: Spatial Planning, Strategic Spatial Vision Project, Urban Design Theory, Urban Project, Urban Design for Health and Wellbeing, Latin American Cities

Xi'an University of Science and Technology 09/2014 – 06/2019

- B.Eng. in Architecture GPA: 85.63/100
- Relevant Courses: City Planning, Residential Area Planning, Site Design, Conceptual Design, Computer-Aided Design, Advanced Mathematics C, Computer Cultural Basis, Engineering Economy and Project Management, Computer Basic Skills Training, Model Making

RESEARCH EXPERIENCES

Note. [x] refers to the papers in the publication & research list.

Wang Lab, Fourth Medical University 02/2023 - Present

Advisor: Prof. Fuli Wang

Research Topics: GeoAI for spatial analytics [4], GeoAI for humanities [3,5], Disease prognosis model [2]

Smart City Seminar: Urban and transportation planning based on data analysis and machine learning, University of North Carolina at Chapel Hill 06/2022 - 02/2023

Advisor: Prof. Yan Song

Research Topics: Mobility analysis, GeoAI for spatial analytics [1]

Global Urbanism and Resilience Lab, University of Edinburgh 09/2020 - 11/2021

Advisor: Prof. Soledad Garcia-Ferrari & Prof. Harry Smith

Research Topics: Urban quantitative research [6], Urban regeneration [7,8], Housing [9]

PUBLICATIONS & RESEARCHES

Publications (+ indicates co-first author, * indicates correspondent author)

1. **Qin, X.** (preprint). Correlation between fine-grained neighborhood socioeconomic status distribution and crime rates in New York City `based on machine learning. *Conference on Signal Processing and Machine Learning 2023*
2. **Qin, X.**+, Zhang, R.+, Gao, X., Zheng, Y., Hou, G., Zhang, Y., Tian, Y., Wang, Y., Ma, S., Wang, F.* (major revision). Sarcomatoid renal cell carcinoma prognosis prediction based on the machine learning algorithm. *Cancer Reports*.
3. Yuan, W.+, **Qin, X.**+, & Zhang, Z.* (manuscript: under revision). Do neighborhood subjective perceptions affect children's emotional health? Insights from GeoAI.
4. **Qin, X.**, & Yang, Y.* (manuscript drafted). Fine-grained traffic accident risk spatiotemporal prediction using deep learning.
5. **Qin, X.**, Zhang, R., & Wang, F.* (manuscript drafted). The impact of built environment and city perception on the health status of Xi'an residents: a GeoAI-based big data approach.

Researches

6. **MASTER THESIS: Evaluation and difference comparison of smart city construction status in China based on the Entropy-TOPSIS method**

   This paper focused on the evaluation of the development level of pilot smart cities in China. Based on the Entropy-TOPSIS evaluation model, this project proposed a smart city evaluation system from six dimensions and evaluated 36 cities, then gave four suggestions for smart city construction.

7. **A guideline for inclusive "Urban Village" regeneration in Guangzhou, China**

   This project focused on the urban village (informal settlements) regeneration and housing problem of the low-income population in Guangzhou, China. Based on quantitative research methods, the report proposed an inclusive urban village regeneration framework to solve these two issues.

8. **Analysis of the challenges of housing and habitat in Guangzhou, China**

   This project aims to investigate and analyze housing and living conditions in six urban centers of Guangzhou, China. Based on qualitative research and field trips, the paper identified the main challenges in each area.

9. **A comparative study of housing affordability in Brazilian cities**

   This project focused on the housing affordability of low-income groups in Brazil. Based on the cluster analysis and least squared method, this paper analyzed changes in housing affordability and regional differences between 2008 and 2018 in 27 large and medium-sized cities in Brazil.

Contributed Conference Presentations (underline: presenter)

10. Yuan, W., **Qin, X.**, & Zhang, Z. (2023). Understanding the relationship between city perceptions and children's mental health in Hong Kong using GeoAI. *Global Smart Cities Summit cum, The 3rd International Conference on Urban Informatics, 20-23 August, Hong Kong, China.*

QUALIFICATIONS AND SKILLS

Languages: Python, R, JavaScript, SQL, Go
Geographic information processing: ArcGIS, QGIS
Modeling & Design: Rhino, Grasshopper, Sketchup, CAD, Photoshop
English: TOEFL 83
Qualifications: Deep Learning Specialization; Mathematics for Machine Learning Specialization; Python 3 Programming Specialization.