

Fengrui Jing

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RESEARCH BACKGROUND

Fengrui is a Postdoc research fellow in the Geoinformation and Big Data Research Lab (GIBD) at the University of South Carolina. He is a member of AGA-YGWG (Asian Geographical Association - Young Geographer Working Group). His research interests focus on the relationship between urban environment and human health, namely,

- Environmental interaction and perception
- Environmental and socioeconomic determinants of mental health and infectious diseases
- Human mobility and spatiotemporal analysis based on multi-source data
- Theoretical and methodological development pertaining to urban and public health studies

EDUCATION & EXPERIENCE

01/2022 – Present: Postdoc researcher, **Department of Geography & Arnold School of Public Health**, University of South Carolina, Columbia SC USA (Supervised by Dr. Zhenlong Li and Dr. Shan Qiao)

09/2017 – 06/2021: PhD student (Major: **Cartography and Geographic Information Science**), Sun Yat-sen University, Guangzhou China (Supervised by Dr. Lin Liu and Dr. Suhong Zhou)

09/2019 – 03/2020: Visiting PhD student (Department: **Crime & Wellbeing Big Data Centre**), Manchester Metropolitan University, Manchester UK (Supervised by Prof. Jon Bannister, FAcSS FRSA)

09/2014 – 06/2017: Master's student (**Physical Geography**), Shaanxi Normal University, Xi'an China

03/2012 – 06/2014: Undergraduate student (Minor, **Psychology**), Central China Normal University, Wuhan China

09/2010 – 06/2014: Undergraduate student (Major, **Social Work**), Central China Agricultural University, Wuhan China

PUBLICATIONS

Working Papers

Jing, F., Li, Z., Qiao, S., Zhang, J., Olatosi, B., Li, X. Disparities in mental health service utilization among immigrants across time using geospatial big data. Manuscript.

Articles in Review

Jing, F., Li, Z., Qiao, S., Zhang, J., Olatosi, B., Li, X. (2022). Using geotagged social media data for infectious disease studies: current status and innovation opportunities. *International Journal of Digital Earth*. Under review.

Jing, F., Li, Z., Qiao, S., Zhang, J., Olatosi, B., Li, X. (2022). Does place connectivity moderate the association between concentrated disadvantage and COVID-19 fatality in the United States? *BMC Public Health*. Under review.

Peer-reviewed paper

Jing, F., Liu, L., Zhou, S., Li, Z., Song, J., Wang, L., ... & Li, X. (2022). Exploring large-scale spatial distribution of fear of crime by integrating small sample surveys and massive street view images. *Environment and Planning B: Urban Analytics and City Science*, 23998083221135608.

Song, J., Zhou, S., Kwan, M. P., Liang, S., Lu, J., **Jing, F.**, & Wang, L. (2022). The effect of eye-level street greenness exposure on walking satisfaction: The mediating role of noise and PM2. 5. *Urban Forestry & Urban Greening*, 77, 127752.

Song, J., Zhou, S., Li, Q., Wang, L., **Jing, F.**, & Ma, R. (2022). The association between perceived residential environment, social interaction and subjective well-being of China's elderly migrants. *Population, Space and Place*, e10.

Jing, F., Liu, L., Zhou, S., & Feng, J. (2021). How does Crime-specific Victimization Impact Fear of Crime in China? The

Role of Neighborhood Characteristics. *International Journal of Offender Therapy and Comparative Criminology*. 0306624X211066829. In Press.

Zhou, H., Liu, L., Lan, M., Zhu, W., Song, G., **Jing, F.**, Zhong, Y., Su, Z., & Gu, X. (2021). Using Google Street View imagery to capture micro-built environment characteristics in drug places, compared with street robbery. *Computers, Environment and Urban Systems*, 88, 101631.

Jing, F., Liu, L., Zhou, S., Song, J., Wang, L., Zhou, H., ... & Ma, R. (2021). Assessing the impact of street-view greenery on fear of neighborhood crime in Guangzhou, China. *International journal of environmental research and public health*, 18(1), 311.

Jing, F., Liu, L., Zhou, S., & Song, G. (2020). Examining the Relationship between Hukou Status, Perceived Neighborhood Conditions, and Fear of Crime in Guangzhou, China. *Sustainability*, 12(22), 9614.

Long, D., Liu, L., Feng, J., Zhou, S., & **Jing, F.** (2018). Assessing the Influence of Prior on Subsequent Street Robbery Location Choices: A Case Study in ZG City, China. *Sustainability*, 10(6), 1818.

Jing, F., Sun, H., & Long, D. (2017). Tourist experience elements structure characteristics analysis of Xixi National Wetland Park based on web text. *Journal of Zhejiang University (Science Edition)*, 44(5): 623-630. (In Chinese)

Jing, F., Sun, H., & Yuan, C. (2017). Spatial structure analysis of tourism resource attraction in Chengdu, *Resources Science*, 39(2): 303-313. (In Chinese)

Jing, F. & Sun, H. (2016). Evaluation of the recreation experience value of urban wetland parks from a visitor perspective: a case of Baqiao Wetland Park in Xi'an city. *Journal of Shaanxi Normal University (Science Edition)*, 44(3): 110-117. (In Chinese)

Jing, F., Sun, H., Yuan, C., Liu Y., & Wang, H. (2015). The Dynamic Network Research of Tourism Economic Relations Based on Social Network Analysis—case of Shaanxi Province. *Journal of Xianyang Normal University*, 76-82. (In Chinese)

Thesis

Fengrui Jing (2021). Street-view microenvironmental correlates, influencing mechanism, and spatial simulation of residents' fear of crime. *PhD thesis*. Sun Yat-sen University.

Fengrui Jing (2017). Chengdu city's tourism resources evaluation and spatial structure analysis based on Internet open data. *Master's thesis*. Shaanxi Normal University.

Fengrui Jing (2014). Research on Group Counseling Intervention of College Students with Employment Anxiety from the Strengths Perspective. *Bachelor's thesis*. Central China Agricultural University & Central China Normal University.

Patent

Lin Liu, **Fengrui Jing**, Suhong Zhou, & Kai Liu (2019). A method of measuring multi-dimensional neighborhood disorder. Publication No: CN111008657A

Software

Participant (2021). Online evaluation software of urban street view and safety perception V1.0. license No: 2021SR0564382

PRESENTATIONS

Jing, F. 2023. Disparities in mental health service utilization among immigrants across time using geospatial big data. **2023 annual meeting of the American Association of Geographers (AAG)**, Denver, US. (Upcoming)

Jing, F. 2022. Place connectivity moderates the association between concentrated disadvantage and COVID-19 fatality in the United States. **The International Association of Chinese Professionals in Geographic Information Sciences (CPGIS) 2022 Annual Conference**, Beijing, China. (Online)

Jing, F. 2021. Measuring large-scale neighborhood-level fear of crime based on questionnaires and street view data. **The International Association of Chinese Professionals in Geographic Information Sciences (CPGIS) 2021 Annual Conference**, Nanchang, China.

Jing, F. & Liu, L. 2020. Examining the Relationship between Hukou Status, Perceived Neighborhood Conditions, and Fear of Crime in Guangzhou, China. **Public Safety and Health & "2020 Urban Health Theory, Method and Application" Seminar**, Guangzhou, China. (Online)

Jing, F. & Liu, L. 2019. The Effect of Natural Outdoor Environment on the Link of Victimization-Fear: Contrasts between the Green and Blue Space. **2019 Joint Conference on Environmental Criminology and Crime Analysis and the 6th International Conference on Crime Geography and Crime Analysis**, Guangzhou, China. (Poster)

Jing, F., Liu, L., Liu, W., Zhou, S., & Long, D. 2019. Is fear of crime mediated by the presence of surrounding blue space? **2019 annual meeting of the American Association of Geographers (AAG)**, Washington D.C., US.

Jing, F. & Liu, L. 2018. Assessing how Neighborhood Disadvantages Moderate the Relationship between Criminal Victimization and Fear of Crime. **The 5th International Conference on Crime Geography and Crime Analysis**, Guangzhou, China.

Jing, F. 2015. Evaluation of the recreation experience value of urban wetland parks from a visitor perspective: a case of Baqiao Wetland Park in Xi'an city. **2015 Postgraduate Academic Meeting at Shannxi Normal University**, Xi'an, China.

ACADEMIC SERVICE

Refereeing for

- *International Review for Spatial Planning and Sustainable Development* (12)
- *Cities* (1)
- *Urban studies* (1)
- *Journal of Asian Architecture and Building Engineering* (2)
- *ISPRS International Journal of Geo-Information* (1)
- *Landscape and Urban Planning* (1)

TEACHING EXPERIENCE

09/2018 – 02/2019: Teaching Assistant

Introduction of Urban and Rural Planning
Sun Yat-sen University

03/2018 – 07/2018: Teaching Assistant

Cartographic Arts
Sun Yat-sen University

RESEARCH PROJECTS

Safety Perception Assessment and Response Based on Big Data (05/2018 to 06/2021)

Project Leaders: Prof. Lin Liu and Prof. Suhong Zhou

This project is a **sub-project** of the National Key R&D Program “Construction of Urban Public Safety Stereo Network and Demonstration of Emergency Response”, which is funded by the Chinese Ministry of Science and Technology.

Background

The traditional method of measuring neighborhood-level fear of crime is to use questionnaires, but the questionnaires may not cover all neighborhoods. Our approach uses multi-source big data to derive detailed neighborhood environment characteristics. Using machine learning methods, the relationship between neighborhood characteristics and neighborhood safety perception can be established.

Role in the project

I am a key member of this project. I participated in the application and implementation of this project. Based on this project, I published two peer-reviewed papers and developed a patent.

Design of Social Safety Evaluation System (09/2018 to 12/2018)

Project Leaders: Prof. Lin Liu and Prof. Suhong Zhou

This project is funded by Guangzhou Politics and Law Committee

Background

Social safety is associated with social stability and residents' happiness and is a concerning topic for policymakers. At present, Guangzhou lacks a dynamic, scientific, and comprehensive social safety index system. We planned to establish

a social safety index system that includes five parts, public safety, traffic safety, environment safety, public health safety, and safety of production and life. The data of this index system is from different government departments. The evaluation result can be used for government management, neighborhood improvement, and risk prevention.

Role in the project

I am a key member of this project. I contributed to the application and implementation of this project, including drafting proposals and final reports.

EMPLOYMENT

01/2022 – Present: University of South Carolina

Department of Geography

Postdoc Research Fellow

Duties/Responsibilities: I do innovative interdisciplinary research on geospatial big analysis by using/developing advanced spatiotemporal analysis methods, statistical and predictive models, and computing algorithms and tools in the intersection of GIScience, data science, and health science.

09/2021 – 12/2021: Sun Yat-sen University

School of Geography and Planning

Research Associate

Duties/Responsibilities: Geospatial data analysis; Preparation of manuscripts; Assistance with the general maintenance of laboratory.

03/2016 – 06/2016: Beijing Tsinghua Tongheng Planning and Design Institute

Innovation Center for Technology

Urban researcher (intern)

Duties/Responsibilities: Using big data to study urban development, planning, and management services, focusing on urban issues in the areas of population, space, transportation, housing, etc.

SKILLS

Software: ArcGIS, R, Python, STATA, HLM, MATLAB, SPSS, GEODA, ENVI, QGIS

Strengths: Statistics, GIS, Machine Learning, Spatial Analysis, Image Processing, Cartography/Remote Sensing

HONORS

2019 Funded by the international program for PhD candidates, Sun Yat-sen University

2016 Second-class Houde Scholarship, Shaanxi Normal University

2015 First-class Yuanding Scholarship, Shaanxi Normal University

ACTIVITIES

2011-2013 President of Creativity and Design Association of Central China Agricultural University