

RUOCHEN YIN

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Department of Geography, The Ohio State University, 154 N. Oval Mall, Columbus, OH 43210

EDUCATION

Ph.D. Geography

The Ohio State University, Department of Geography

Adviser: Huyen Le

Expected candidacy exam: 10/2024

08/2022 – Present

Columbus, OH

Master of Engineering in Urban and Rural Planning

Tongji University, College of Architecture and Urban Planning (CAUP)

Adviser: De Wang, Co-adviser: Chun-Ming Hsieh

- **Thesis:** Risk Prevention and Control Methods of Small Open Space in Post-Epidemic Era - Simulation of Respiratory Infectious Disease Transmission based on CFD

2022

Shanghai, China

Bachelor of Engineering in Urban and Rural Planning

Shandong Jianzhu University, School of Architecture and Urban Planning

2019

Jinan, China

PUBLICATIONS

Manuscripts under review or in preparation

- (1) **Ruochen Yin**, Huyen Le. Heat and Noise Exposure during Active Travel: A Systematic Review. *Transport Reviews*
- (2) **Ruochen Yin**, Sandy Wong, and Huyen Le. Clusters of High Environmental Risks and Geographic Disparities in Climate Change Vulnerabilities (working paper).
- (3) Dynamic Multiple Exposure: A Systematic Review (working paper, with Age Poom and Huyen Le).

Journal articles

- (1) Zheng, Z., Sun, N., Chen, H., **Yin, R.**, Wang, Z., Liu, W., & Wang, Y. (2024). Exploring the association between openness scale of campus street spaces, street greenery, campus walkability and physical activity of college students. *Journal of Transport & Health*, 38, 101897. <https://doi.org/10.1016/j.jth.2024.101897>
- (2) Wei Dan, Hu Yang, **Yin Ruochen**. (2024) International Experience and Insights of 24-Hour City: Cases of London, New York, and Tokyo *Shanghai Urban Planning Review* (02):23-30. (In Chinese)
- (3) **Yin Ruochen**, Fang Jia, Zhu Dan, Hu Yang (2022). Measurement of Cooling Efficiency in Urban Parks and Strategies for Climate Adaptation Design. *Chinese Landscape Architecture* (6),121-126. doi:10.19775/j.cla.2022.06.0121. (In Chinese, highly cited in 2023.11-12 in CNKI)
- (4) Ye Yu, **Yin Ruochen**, Hu Yang & Fang Jia (2021). Measuring the Impacts of Fine-Scale Urban Forms on Street Temperatures and Design Responses. *Landscape Architecture* (08),58-65. doi:10.14085/j.fjyl.2021.08.0058.08. (In Chinese)
- (5) **R Yin**, X Miao. Z Geng, & Y Sun.(2018). Assessment of residential satisfaction and influence mechanism—a case study of Jinan city. *Journal of Business Administration Research*, 7(2). doi:10.5430/jbar.v7n2p9

Conference paper

- (1) **R Yin**, J Fang. C Hsieh. (2021). Infectious Risk Prevention and Control Methods of Small Open Space in Post-Epidemic Era. *Proceedings of the 57th ISOCARP World Planning Congress*, ISBN/EAN 978-90-75524-69-7, 948-959, <https://doha2021.isocarp.org/paper-platform/abstract/public/491/infectious-risk-prevention-and-control-methods-of-small-open-space-in-post-epidemic-era-risk-analysis-of-airborne-transmission-of-respiratory-infectious-diseases-based-on-cfd-wind-environment-simulation>

CONFERENCES PRESENTATIONS

- (1) **Ruochen Yin**, Huyen Le. Heat and Noise Exposure during Active Travel: A Systematic Review. *The East Lakes Division of the American Association of Geographers (East Lake AAG)*. November 2023.
- (2) **R Yin**, J Fang, C Hsieh. Infectious Risk Prevention and Control Methods of Small Open Space in Post-Epidemic Era. *The 57th World Planning Congress of City and Regional Planners*. November 2021. (Virtual)
- (3) **R Yin**, J Fang, C Hsieh, D Wang. Risk prevention and control methods of small open space in the post-epidemic era: Simulation analysis of respiratory infectious disease transmission based on CFD (in Chinese). *Conference of Chinese Urban Geography*. September 2021. (Virtual)

RESEARCH PROJECTS

Geographic Disparities in Climate Change Vulnerabilities at the Intersection of Disability, Race, and Class

05/2024 – present

- Spatial-temporal analysis through SatScan and LISA and find the high vulnerability area with marginalized people and risk environment in Columbus.

Review of dynamic multiple exposure

05/2024 – present

- Review all papers related to multiple exposures during human mobility.

Review of heat and noise exposure during active travel

06/2023 – 05/2024

- Review all papers related to heat and noise exposure during active travel and discussing the relationship between environmental exposure and active transportation.

Master Thesis: Risk Prevention and Control Methods of Small Open Space in Post-Epidemic Era - Simulation of Respiratory Infectious Disease Transmission based on CFD

09/2020 – 05/2022

- Explore the relationship between infection risk of COVID-19 and different open space forms based on the transmission CFD Wind Environment Simulation.

Spatio-temporal Calculation and Path of Building Peak Carbon Emissions

04/2021 – 05/2022

- Estimate the distribution of building carbon emissions and the current situation of building energy based on mobile phone data, exploring the appropriate building energy standards and energy saving renovation.

Measurement of Urban Park Cooling Efficiency and Climate-Responsive Design Strategies

03/2021 – 06/2021

- Propose the index of cooling efficiency of urban parks on urban temperature and then discussing the influence of relevant park design elements on mitigate urban heat island effect.

Measuring the Impact of Fine-Scale Urban Form on Street Temperature and Design Strategy

12/2020 – 03/2021

- Extract surface temperature data from remote sensing to explore the relationship between street temperature and the street feature, then discuss the climate-responsive street design. The street features are based on street View Image, urban form, street network.

Design Competition: 2020 Shanghai Urban Design Challenge

12/2020

- Urban design of the Lujiazui area in the post-epidemic era supported by multi-source data (mobile phone data, point of interest, microclimate simulation).

RESEARCH EXPERIENCES

Research Assistant

Healthy Mobility Group, Department of Geography, the Ohio State University

05/2023 – present

Columbus, OH

- Systematic Review on Heat and Noise Exposure during Active Travel
- Geographic Disparities in Climate Change Vulnerabilities at the Intersection of Disability, Race, and Class

Research Assistant

Big Data and Urban Analysis Laboratory, Tongji University

01/2021 – 03/2021

Shanghai, China

- National Territory Plan in Erdos
- Thematic Studies on Population and Housing Development in Suxiang Cooperation Zone

Research Assistant

Key Laboratory of Ecology and Energy-saving Study of Dense Habitat (Tongji University), Ministry of Education

05/2020 – 12/2020

Shanghai, China

- Spatial Network Planning of Slow Traffic on Both Sides of Suzhou Creek
- Evaluation of Urban Street Space Charm in China Supported by Multi-Source Data
- Height and Strength Control Study at Lintong

PROFESSIONAL EXPERIENCES

Voluntary Community Planner

Aichuangyi Public Welfare Development Center (NPO)

03/2021 – 05/2022

Shanghai, China

- Low-carbon community construction
- Community Facilities Renewal
- World Environment Day activities

Assistant Urban Planner

Tong Yuan Design Group Co., Ltd.

09/2018 – 12/2018

Jinan, China

- Urban design of Pingyin County central City
- Urban design of Sun Village in High-tech District

TEACHING EXPERIENCES

The Ohio State University

- **GEOG 1900 Extreme Weather and Climate (SP 2024)**

The lab instructor for a total of 45 first-year undergraduate students (two sessions), the class is about introducing basic geographical and climatic phenomena through a physical lab.

- **GEOG 4103 Introductory of Spatial Data (SP&AU 2023)**

The lab instructor designs labs and reviews lectures for a total of 50 senior undergraduate students (two sessions), the class is about spatial statistical analysis in R.

- **GEOG 5300 Geography of Transportation (AU 2022)**

The grader organizes class discussions for a total of 80 undergraduate/graduate students, the class is about transportation thought and theory.

Tongji University

- **Urban design analysis methods (AU 2020)**

Design and prepare data for the class project, the class is about spatial data manipulation and analysis with ArcGIS for graduate students.

- **Urban analysis method (AU 2019)**

Grader, the class is about statistical analysis with SPSS and NLOGIT for senior undergraduate students.

- **General Studies in Architecture -Model: City Perception (SP 2020)**

Guest Instructor, 4 lectures to introduce Chinese city planning and their history for students in the preparatory program.

AWARDS AND HONORS

The Ohio State University:

- 2024 ASP Summer Colloquium by NCAR and NSF (Integrating atmospheric and social approaches to improve urban air quality) July 15-26- Boulder, Colorado, USA (2024)
- Rayner Scholarship for fieldwork - \$3,500 Geography Graduate Award (2023)

Tongji University:

- Outstanding graduate of Tongji University (2022)
- Tongji University Social Activities Scholarship for Graduate Students (2021)
- Shanghai Urban Design Challenge (Big Data Application Award. 2020)

Shandong Jianzhu University:

- Outstanding Graduate of Shandong Province (2019)
- University-level second-class scholarship (2016/2017)
- University-level first-class scholarship (2015)
- The National Scholarship - ¥ 8,000 (2015)

SERVICE

Department Service

- 2024 – present: Treasurer, Geography Graduate Organization in the Ohio State University

University Service

- 2014-2017: Vice president, Qilu Ancient Architecture Culture Research Center (student club) in Shandong Jianzhu University

OTHERS

Social Work

- Youth community planner in Xuhui District (2021-2022)
- The main organizer of the conference: Kyoto University and Tongji University (Urban and Transportation Management) Annual Joint Conference (2020)

International Exchange and Cooperation

- International workshop with Polytechnic University of Milan on flexible Urban Renewal Design based on the reuse of concrete materials at Tongji University (2019).
- Anhui International Workshop with Tianjin University and the University of Rome: Research on the contemporary adaptive regeneration strategy of traditional settlements (2018).

SKILLS

GIS and Analysis Skills: ArcGIS Desktop, ArcGIS Pro, QGIS, ENVI, Stata, SPSS.

Programming: R, Python, Matlab.

Other Tools: AutoCAD, Rhino Grasshopper, Photoshop, Illustrator, WindPerfectDX (CFD wind environment simulation), CONTAM (air ventilation analysis), Risk Assessment.

Language: Chinese (Native), English.