

Jiaxuan Wang

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Education

National University of Singapore – Master of Urban Planning

Aug 2020 – May 2022

- Thesis: Insights in a city through the eyes of Airbnb reviews: Sensing urban characteristics from homestay guest experiences

National University of Singapore – Bachelor of Science in Real Estate

Aug 2016 – May 2020

- Dissertation: Corruption and Skyscrapers in Major World Cities

Work Experience

Lee Kuan Yew Centre for Innovative Cities (LKYCIC), Singapore University of Technology and Design (SUTD)

Senior Research Assistant

Aug 2022 – May 2026

Principal Investigator: Dr Belinda Yuen

- Conducted interdisciplinary urban research using statistical, geospatial and qualitative methods; managed research workflows, collaborated with government and academic partners, and co-authored reports and journal manuscripts.

Selected Research Projects:

An Integrated Socio-Temporal Study of Outdoor Recreation Spaces (ORS) in Singapore

- Developed a research framework for Twitter analytics and explored analytical tools such as Large Language Models (LLMs) and Latent Dirichlet Allocation (LDA).
- Designed data analysis plans and executed large-scale quantitative, qualitative, and geospatial analysis on extensive survey and spatial datasets.
- Managed field methodologies to triangulate spatial use patterns.

Ageing with AI

- Designed a nationwide digital survey instrument to evaluate technology experiences among older adults.
- Led data collection, management, and statistical analysis to uncover key behavioral insights regarding digital tool adoption.

Cities Innovation and Transformation Assessment

- Formulated a research framework based on a global meta-analysis of smart and sustainable city awards and indices.
- Conducted key informant interviews and qualitative thematic analysis to extract critical institutional insights, leading to book chapter publication.

National University of Singapore (NUS)

Student Research Assistant

Mar 2021 – Jul 2022

Principal Investigator: Dr Yi Fan

- Streamlined data organization by developing efficient spreadsheets and databases for easy access and analysis.
- Web-scraped newspaper articles from Factiva and pre-processed raw data for subsequent sentiment analysis.
- Applied pre-trained sentiment models and conducted regression analyses to examine the relationship between social inequality and COVID-19 regulations across cities.

Urban Analytics Lab, National University of Singapore (NUS)

Data Analytics Intern

Nov 2021 – Jan 2022

Principal Investigator: Dr Filip Biljecki

- Pre-processed and explored OpenStreetMap (OSM) data for the lab's database to support data quality assessments.

Teaching Experience

National University of Singapore (NUS)

Teaching Assistant

Jan 2022 – May 2022

Instructor: Dr Filip Biljecki

- Assisted in the delivery of lectures and tutorials for graduate students in the Planning Technologies course within the urban planning curriculum. Provided detailed feedback on student assignments.
- Course title: Planning Technologies

Publications

- **Wang, J.**, Chow, Y. S., & Biljecki, F. (2023). Insights in a city through the eyes of Airbnb reviews: Sensing urban characteristics from homestay guest experiences. *Cities*, 140, 104399. <https://doi.org/10.1016/j.cities.2023.104399>
- Yuen, B., Chan, F., Kato, Y., **Wang, J.**, Jimenez, J. (2025). *Activating Outdoor Recreation Space-People Connection Playbook*. National Parks Board Publications. <https://www.sutd.edu.sg/lkycic/publication-listing/activating-outdoor-recreation-space-people-connection-playbook/>
- Yuen, B., Yang, X., Chan, F., Jimenez, L., Nearing, C. M., **Wang, J.** (2025). *Youth Outdoor Recreation Space Playbook*. <https://www.sutd.edu.sg/lkycic/publication-listing/youth-outdoor-recreation-space-playbook/>
- Yuen, B., Cai, Y., Nearing, C. M., **Wang, J.**, Yang, X. (2026). *Innovation towards Sustainability: 6 Cities, 12 Approaches*. World Scientific. <https://doi.org/10.1142/14665>
- Yuen, B., Chan, F., Cai, Y., Yang, X., Jimenez, J., **Wang, J.**, Li, B., Nearing, C. M. (2026). *Pulse of Global Smart and Low Carbon Urban Development*. <https://www.sutd.edu.sg/lkycic/wp-content/uploads/sites/16/2026/06/pulse-of-global-smart-and-low-carbon-urban-development.pdf>
- Yuen, B., Yuen, C., Joyce, S. C., Koh, Z., Kato, Y., Chan, F., **Wang, J.**, Jimenez, J., Foliente, G., Tan, V. H-H. (2026). *Outdoor Recreation in High-rise Singapore*. Springer. (Under publication)
- Chan, F., Kato, Y., **Wang, J.**, Yuen, B. (2026). Older adults' adaptations to outdoor recreation spaces in Singapore. *Cities and Health*. (Under review)
- Cai, Y., **Wang, J.**, Nearing, C. M., Yuen, B. Digitalisation and Healthy Aging in Singapore, Barcelona, Shanghai. *SpringerBriefs in Aging*. (Submitted for review)

Conference Presentations

- **Wang, J.** & Yuen, B. (2024, May 25). *Rewarding cities innovation and transformation in urban sustainability* [Onsite parallel session 4]. The 15th Asian Conference on the Social Sciences (ACSS). Tokyo, Japan.
- **Wang, J.** & Yuen, B. (2026, April 10). *Digital first, not digital only: Examining AI literacy and "6As" of digital inclusion among older adults in Singapore* [Virtual session B7]. The 10th International Conference on Urban e-Planning (IJEPR). Lisbon, Portugal.

Working papers

- Yang, X., Yuen, B., Chan, F., **Wang, J.** (2026). Making shared paths safer for older pedestrians: A randomized controlled trial of "Keep Left" information interventions in Singapore. (Work in progress)
- **Wang, J.**, Kato, Y., Chan, F., Foliente, G., & Yuen B. (2027). Urban form indicators for multi-scale assessment of cities: Adapting Urban DMA framework for green spaces in Singapore. (Work in progress)

Media Exposure and Case Writing

- Fan, Y., & **Wang, J.** (2022, September 22). Commentary: Treat Neighbour Noise as a Public Health Issue. *Channel News Asia*. https://www.channelnewsasia.com/commentary/noisy-neighbours-public-health-noise-control-limits-2945646?cid=linkedin_traffic_social_10082018_cna
- **Wang, J.** (2023). Supporting Healthy Ageing in Place in Singapore: The Pilot Model of Continuing Care Precinct at Tampines Greenweave. *LKYCIC Ageing Urbanism Resources: Notes on Age Friendly and Dementia Friendly Cities*.

https://www.sutd.edu.sg/lkycic/wp-content/uploads/sites/16/2025/09/Supporting-Age-in-Place_Tampines-Greenweave.pdf

- Chan, F. H-H., Kwan, A. E., Nearing, C. M., Teo, A., **Wang, J.**, & Wang, Y. W. (2024). *Planning Education: Its Evolution and Relevance*, Knowledge Project 1.0 Vol.2. Singapore Institute of Planners, Singapore. <https://planning.org.sg/resources/sip-knowledge-project/>
- **Wang, J.** (2024). Learning While Ageing: Current Status and Challenges of Senior Education in China. *LKYCIC Ageing Urbanism Resources: Notes on Age Friendly and Dementia Friendly Cities*. https://www.sutd.edu.sg/lkycic/wp-content/uploads/sites/16/2025/09/240930_Senior_Education_in_China_Edited.pdf
- **Wang, J.** (2025). From Early Retirement to Active Ageing: Seoul 50Plus Foundation. *LKYCIC Ageing Urbanism Resources: Notes on Age Friendly and Dementia Friendly Cities*. <https://www.sutd.edu.sg/lkycic/wp-content/uploads/sites/16/2025/09/From-Early-Retirement-to-Active-Ageing.pdf>
- Fan, Y., & **Wang, J.** (2025, October 31). In many Asian societies, where direct confrontation is discouraged, noise becomes an indirect outlet for frustration. [Joint response on Loud banging, shouting and music: More Singaporeans find themselves trapped by noisy neighbours by Tang, J. W.]. *CNA Today*. <https://www.channelnewsasia.com/today/ground-up/loud-noise-neighbours-complaints-disputes-hdb-estates-5431971>
- **Wang, J.** (2026). Spinning New Beginnings for the Disco Generation. *LKYCIC Ageing Urbanism Resources: Notes on Recreation*. https://www.sutd.edu.sg/lkycic/wp-content/uploads/sites/16/2026/04/20260423_Disco-generation.pdf

Datasets and Tools

- **Traffic Accident Analysis GUI (New York City):** Developed an interactive graphical user interface (GUI) using PyQt5 with custom-built analytical functions for spatio-temporal analysis and black spot detection of traffic accidents in New York City. Implemented DBSCAN for cluster identification, spatial autocorrelation and hot spot analyses, and kernel density estimation for spatial visualization. *Video demonstration:* https://www.youtube.com/watch?v=TtflHXyBE&list=PLXF-rteYDHe0v8Gm2qKucraoGVrLD_6RQ&index=4&t=368s
- **Power BI Dashboard for Child-Friendly Playgrounds (Singapore):** Designed and built an interactive Power BI dashboard visualizing built environment features of children's playgrounds in Sengkang and Punggol. Enabled comparative spatial analysis of playground accessibility and amenities. *Project link:* <https://www.sutd.edu.sg/lkycic/research-project-listing/building-child-friendly-neighbourhoods-in-singapore/>

Professional Organization Membership

Singapore Institute of Planners

Graduate Member

2023 – Present

- Research team for SIP Knowledge Project 1.0, Volume 2.: Designed the *Planning Education* survey and analyzed the state of urban planning education in Singapore to understand its evolution and identify areas for improvement. *Project link:* <https://planning.org.sg/resources/sip-knowledge-project/>

Skills

- Programming and data analysis: R, Python, SPSS
- Geospatial analysis: ArcGIS Pro, QGIS
- Data visualization: Tableau, Power BI
- Quantitative methods: SEM, regression, clustering, factor analysis
- Qualitative research methods

Language

- Mandarin Chinese: Native proficiency
- English: Professional working proficiency