

Shirley Shiqin Liu

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SUMMARY

City planning and policy researcher experienced with applying geospatial analysis techniques and statistical models to answer complex research questions. Detail oriented with strong writing and communication skills, publication record, and history of collaboration. Passionate and self-motivated learner interested in developing open-source and reproducible spatial analysis methods to leverage complex and open data sources to study urban phenomenas and social issues.

EDUCATION

Ph.D. in Public Policy <i>Northeastern University, Boston</i>	May 2022 <i>Massachusetts, USA</i>
M.S. in Urban and Regional Planning, APA Accredited <i>The University of Iowa, Iowa City</i>	May 2017 <i>Iowa, USA</i>
B.A. in Urban Studies GIS Certificate, Summa Cum Laude <i>Cleveland State University, Cleveland</i>	May 2015 <i>Ohio, USA</i>
B.A. in Public Administration <i>South China University of Technology, Guangzhou</i>	September 2011 - August 2012 <i>Guangdong, China</i>

TECHNICAL SKILLS

Computer languages: Python, Stata, R, SQL, Latex

Software: Pandas, Geopandas, OSMnx, ArcGIS/QGIS, Geoda/PySAL, SQL databases

PROFESSIONAL EXPERIENCE AND SERVICE

Researcher

Center for Transportation Studies, University of Minnesota, Minneapolis, MN *February 2022 - Present*

- Plans and performs geospatial data analytics using Python, R, PostgreSQL, and QGIS to measure and evaluate multi-model transportation access to different types of destinations.
- Supports business development activities at the Accessibility Observatory through grant writing, convening collaborators, and project management.

Instructor

Northeastern University, Boston, MA

Summer 2021, Summer 2022

- Developed the first graduate-level Python for policy course in our school and taught students how to use coding to conduct research studies in policy and non-profit settings. (Course content publicly available on GitHub: <https://github.com/shiqin-liu/ppua6202-python-policy>)
- Instructor of record for 10+ graduate students, responsible for the instruction, supervision, and grading of all student material

CSSH Experiential Fellow

Northeastern University, Boston, MA; RMIT University, Melbourne, Australia

January 2020 - May 2022

- Collaborated with an international team of 15+ urban studies and public health scholars to measure and access spatial indicators of urban design and transport features that could be used to benchmark and monitor city planning progress across cities globally
- Assisted development of methodological Python script for measuring pedestrian accessibility and walkability in 25 cities worldwide and maintaining open-source code on GitHub.
- Led a peer-reviewed publication that demonstrates our open-source framework that could be used by researchers and practitioners to measure accessibility at the neighborhood and city level

Research Assistant

Northeastern University, Boston, MA

May 2020 - December 2022

- Assisted a multi-year evaluation, in partnership with the Boston Mayor's Office of Workforce Development to assess how summer job programs can help reduce inequality and crime behavior among youth in Boston.
- Designed and distributed surveys to more than 5000 youth in Qualtrics, and analyzed survey data using Stata to assess the effects of summer jobs on community engagement, social skills, job readiness, and college

aspirations

- Developed a method and created reusable Python code to identify peers in control and treatment group through spatial proximity using address location data and to evaluate the program's peer effects

Teaching Assistant

Northeastern University, Boston, MA

Fall 2018, Spring 2018, Fall 2019

- Worked as a teaching assistant for Research Methods, Statistical Analysis, Introduction to Law 101
- Assisted faculty in the development of course syllabus; held office hours and provided supports for students

College Diversity Advisory Council and Administration Assistant

Northeastern University, Boston, MA

September 2018 - May 2019

- Assisted and hosted meetings for faculty recruiting process and university diversity programs
- Produced event reports and spotlights for Civic Sustainability, Diversity and Inclusion (CSDI) Initiatives in the College of Social Science and Humanities' Office of the Dean

SELECTED PUBLICATIONS

Liu, S., Higgs, C., Arundel, J., Boeing, G., Flores, D. R., Cerdera, N., Cerin, E., Adlakha, D., Lowe, M., & Giles-Corti, B. (2021) A Generalized Framework for Measuring Pedestrian Accessibility around the World Using Open Data. *Geographical Analysis*, 10.1111/gean.12290.
- Open-source code available on GitHub: <https://github.com/global-healthy-liveable-cities/global-indicators>

Boeing, G., Higgs, C., **Liu, S.**, et al. (2022) Using open data and open-source software to measure and map spatial indicators of urban design and transport features for healthy and sustainable cities in 25 cities worldwide. *Lancet Global Health*, 10(6), 10.1016/S2214-109X(22)00072-9

Giles-Corti, B., [et al, 25 authors including **Liu, S.**] (2022) Creating healthy and sustainable cities: What gets measured gets done. *Lancet Global Health*, 10(6), 10.1016/S2214-109X(22)00070-5

Lowe, M., [et al, 29 authors including **Liu, S.**] (2022) City planning policies to support health and sustainability: Policy indicators for 25 cities worldwide. *Lancet Global Health*, 10(6), 10.1016/S2214-109X(22)00069-9

Cerin, E., [et al, 21 authors including **Liu, S.**] (2022) Determining optimal thresholds for spatial urban design and transport features of healthy and sustainable cities: Findings from the IPEN Adult study. *Lancet Global Health*, 10(6), 10.1016/S2214-109X(22)00068-7

Giles-Corti, B., [et al, 18 authors including **Liu, S.**] (2022) What next? An expanded view of city planning and global health, and the need for evidence-informed policy to be implemented and monitored. *Lancet Global Health*, 10(6), 10.1016/S2214-109X(22)00066-3

Liu, S. (2021). The Urban-Rural Divide: The Effects of Small Business Innovation Research Program in Small and Non-Metro Counties. *Economic Development Quarterly*, 10.1177/08912424211029709

Liu, S., Qian, H., & Haynes, K. E. (2020). Entrepreneurship in Small Cities: Evidence from US Micropolitan Areas. *Economic Development Quarterly*, 0891242420941927.

Qian, H., & **Liu, S.** (2018). Cultural Entrepreneurship in US Cities. *Journal of Urban Affairs*, 40(8), 1043-1065.
- Winning entry of the best conference paper at the 2017 Urban Affair Association Conference

AWARDS

Dissertation Research Grant Award at Northeastern

June 2021

Experiential fellowship by CSSH at Northeastern

January 2020

5-year Granted Teaching and Research Assistantship at Northeastern

September 2017

Co-winner of Urban Affair Association Best Conference Paper Award

April 2017

CARTHA India Winterim Travel Stipend Award

November 2015

Scholarship Recipient of the Sweet Scholarship in Public Service and Civic Education

November 2014

Co-winner of Third Prize in the 13th university-sponsored Challenge Cup

April 2012

University Scholarship Recipient of Second Place

June 2012

PROFESSIONAL MEMBERSHIP

Association of Collegiate Schools of Planning (ACSP), Member

Regional Science Association International (RSAI), Member

American Planning Association (APA), Member