

Luyu Liu

The Ohio State University, Department of Geography
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Research Area

Accessibility, Public transit, Micro-mobility, Mobility equity

Education

Aug 2019 - present	Department of Geography, The Ohio State University, Columbus, Ohio Ph.D. Geography
Aug 2020 - Aug 2021	Department of Educational Studies, The Ohio State University, Columbus, Ohio Graduate Certificate in College and University Teaching
Aug 2017 - Jul 2019	Department of Geography, The Ohio State University, Columbus, Ohio M.A. Geography
Sep 2013 - Jul 2017	College of Urban and Environmental Sciences, Peking University, Beijing, China B.S. Environmental Science
Sep 2014 - Jul 2017	School of Mathematical Sciences, Peking University, Beijing, China B.S. Mathematics and Applied Mathematics

Thesis

Aug 2019 - present	Accessibility in Motion: Measuring Real-time Accessibility with Dynamic Data Ph.D. dissertation, The Ohio State University, with Dr. Harvey Miller, Dr. Ningchuan Xiao, Dr. Huyen Le, and Dr. Andre Carrel
Feb 2018 - Aug 2019	Measuring public transit transfer risk using high-resolution schedule and real-time bus location data Master's thesis, The Ohio State University, with Dr. Harvey Miller, Dr. Ningchuan Xiao, and Dr. Morton O'Kelly
Feb 2015 - Jun 2017	Measuring and Decomposing Global CO2 emission Inequality Undergraduate thesis, Peking University, with Dr. Bengang Li

Publication

Journal Articles

Liu, L., & Miller, H. J. (2020). Measuring risk of missing transfers in public transit systems using high-resolution schedule and real-time bus location data. *Urban Studies*, 0042098020919323.

Liu, L., & Miller, H. J. (2020). Does real-time transit information reduce waiting time? An empirical analysis. *Transportation Research Part A: Policy and Practice*, 141, 167-179.

Liu, L., Miller, H. J., & Scheff, J. (2020). The impacts of COVID-19 pandemic on public transit demand in the United States. *Plos one*, 15(11), e0242476.

Park, Y., Mount, J., **Liu, L.**, Xiao, N., & Miller, H. J. (2019). Assessing public transit performance using real-time data: spatiotemporal patterns of bus operation delays in Columbus, Ohio, USA. *International Journal of Geographical Information Science*, 1-26.

Conference and Presentation

Liu, L., Miller, H. J. (2021). Revisiting the Impacts of Transit Real-time Information on Waiting Time Reduction: An Empirical Analysis in Columbus, Ohio. At American Association of Geographers Annual Meeting 2021.

Liu, L., Miller, H. J. (2019). Measuring public transit transfer risk using highresolution schedule and real-time location data. At American Association of Geographers Annual Meeting 2019, Washington, DC.

Root, E. D., **Liu, L.**, Porr, A. (2019). Addressing birth outcomes with data analytics and spatial analysis. At 18th International Medical Geography Symposium 2019, Queenstown, New Zealand.

Research Project Experience

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| Mar 2019 - Sep 2020 | MORPC Sustainability Dashboard
The Ohio State University, with Dr. Harvey Miller and Dr. Ningchuan Xiao
Visualize sustainability progress in a holistic dashboard with integrated backend. |
| Aug 2017 - Oct 2018 | Columbus Urban & Regional Information Observatory (CURIO)
The Ohio State University, with Dr. Harvey Miller and Dr. Ningchuan Xiao
Visualize the geographic information in city of Columbus in comprehensive web-map |
| May 2018 - Aug 2019 | Infant Mortality Research Partnership (IMRP) Online GIS Platform
The Ohio State University, with Dr. Elisabeth Root
Integrate and visualize public health and GIS data in a holistic web-based platform |
| Nov 2017 - May 2018 | Neighborhood Polygon Algorithm Based on Network Analysis
The Ohio State University, with Dr. Christopher Browning, Dr. Catherine Calder
Develop algorithm generating neighborhood polygons based on road network |

Teaching and Public Speaking

May 2021 - July 2021	Ohio State University GEOG 5210: Fundamental GIS, 3 credits Instructor, student SEI rating: 4.71/5 (University average: 4.48), 34 enrollments
June 2021	UCGIS Workshop: Full-stack Geo-visualization 101: How to Make Productive Webmaps Instructor, participants rating: 4.44/5, 19 enrollments
July 2021	Harvard University Vizathon: Learn to Make Your First Web Map Workshop organizer and instructor
Feb 2020	Ohio State University GEOG 2200: Mapping Our World Guest lecturer on geo-visualization
Jan 2021	West Washington University ENVS 412: Environmental Journalism Guest lecture on COVID impact on public transit
Nov 2020	Ohio State News: "Pandemic has surprising impacts on public transit demand" from https://news.osu.edu/pandemic-has-surprising-impacts-on-public-transit-demand/
Oct 2020	Ohio State News: "Want to wait less at the bus stop? Beware real-time updates" from https://news.osu.edu/want-to-wait-less-at-the-bus-stop-beware-real-time-updates/

Grant

2020	"Sharpe Innovation Commons Seed Grant Award" by Geography OSU - \$5000
2014 - 2017	"Everest Project" by Department of Education and Peking University - \$6000

Award

2020	TR Lakshmanan and Lata Chatterjee Awards 2020
2020	Collaborative Achievement in Sustainability Award from Mid-Ohio Regional Planning Commission (as group)
2013 - 2016	Scholarship of Tiehan, PKU, 2013-2016
2016	Honorable Mentioned by "Mathematical Contest in Modeling" Sponsored by COMAP
2015	President of "Outstanding Class" award winner of PKU in 2015

Service

Peer Review for Journals

Sustainable Cities and Society
Transportation Research Part C: Emerging Technologies
Journal of Public Transportation
American Journal of Infection Control

Department/University Service

Sep 2021 Graduate Geography Organization, Social Chair