

# Yuqin Jiang, Ph.D.

Assistant Professor  
Department of Geography and Environment  
University of Hawai'i at Mānoa  
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## EDUCATION

- 2022 Ph.D. **Department of Geography, University of South Carolina**  
Advisor: Dr. Zhenlong Li  
Dissertation: *Quantifying human mobility patterns during disruptive events with geospatial big data*
- 2017 M.S. **Department of Geography, University of South Carolina**  
Advisor: Dr. Diansheng Guo  
Thesis: *Urban accessibility measurement and visualization – a big data approach*
- 2014 B.A. **Department of Geography, University at Buffalo**  
*Summa Cum Laude*

## Employment

- 2024 – present **Assistant Professor**  
Department of Geography and Environment  
University of Hawai'i at Mānoa
- 2023 – 2024 **Postdoctoral Scholar**  
Department of Geography and Environmental Studies  
Texas State University  
*Supervisor: Dr. Su Yeon Han*
- 2022 – 2023 **Postdoctoral Researcher**  
Zachry Department of Civil and Environmental Engineering  
Texas A&M University  
*Supervisor: Dr. Ali Mostafavi*
- 2018 – 2022 **Research Assistant**  
Geoinformation and Big Data Research Lab  
Campus GIS  
Carolinas Integrated Science and Assessments  
University of South Carolina

2016 – 2022    **Teaching Assistant**  
Department of Geography  
University of South Carolina

## RESEARCH INTERESTS

Computational social science, spatial computing, spatial data science  
Cyberinfrastructure and high-performance computing  
Geospatial data and data-driven visualization  
Big data, spatio-temporal data mining  
Human mobility, nature hazards, transportation, social equity

## HONORS AND AWARDS

2022	First Place in Robert Raskin Student Competition, Cyber Infrastructure Specialty Group of the Association of American Geographers (\$300)
2019	UCGIS-CyberGIS Center at UIUC Award for Advancing Reproducible Geospatial Research
2019	AAG-UCGIS Summer School Travel Award for Reproducible Problem Solving with CyberGIS and Geospatial Data Science
2019	C. C. Royal Trustee Fellowship nominee, University of South Carolina
2018	Teaching Assistant Award, Department of Geography, University of South Carolina
2018	Third Place in Robert Raskin Student Competition, Cyber Infrastructure Specialty Group of the Association of American Geographers
2018	Outstanding Master's Thesis Award, Transportation Geography Specialty Group of the Association of American Geographers
2014	Outstanding Academic Performance Award, Department of Geography, University at Buffalo
2010 – 2014	International Admission Scholarship, University at Buffalo

## RESEARCH GRANTS

2025	Research Support Award, College of Social Science, University of Hawai'i at Mānoa (\$38,126)
2024	CyberTraining Seed Grant, University of Hawai'i at Mānoa (\$2,000)
2024	Dewey Research Data Grant, Dewey Data (\$1,800)
2023	Research Grant for Emergency Management Applied Research, Texas A&M University (\$10,000)
2019	SPARC Graduate Research Grant, University of South Carolina (\$5,000)

## PUBLICATION

### *Peer-reviewed Journal Articles*

- [19] **Jiang, Yuqin**, Zhenlong Li, Joon-Seok Kim, Huan Ning, Su Y. Han. “Comparative Analysis of Human Mobility Patterns: Utilizing Taxi and SafeGraph Data to Investigate Neighborhood-Scale Mobility in New York City”. *Annals of GIS* (Accepted).
- [18] **Jiang, Yuqin**, Yihong Yuan, and Su Y. Han. “An entropy-based measurement for understanding origin-destination trip distributions: a case study of New York City taxis.” *Big Earth Data*, 8.4 (2024): 673-702.
- [17] Li, Xiangpeng., **Yuqin Jiang**, and Ali Mostafavi. “Hazard Exposure Heterophily in Socio-spatial Networks Contributes to Post-disaster Recovery in Low-income Populations.” *International Journal of Disaster Risk Reduction*. 108 (2024). <https://doi.org/10.1016/j.ijdr.2024.104537>.
- [16] Rajput, Akhil A., **Yuqin Jiang**, Sanjay Nayak, and Ali Mostafavi. “Mapping Inequalities in Activity-based Carbon Footprints of Urban Dwellers using Fine-grained Human Trajectory Data”. *arXiv preprint arXiv:2304.14417*
- [15] Li, Xiangpeng, **Yuqin Jiang**, and Ali Mostafavi. “AI-assisted Protective Action: Study of ChatGPT as an Information Source for a Population Facing Climate Hazards.” *AI & Society: Journal of Knowledge, Culture and Communication*. (Under revision). arXiv preprint arXiv:2304.06124.
- [14] **Jiang, Yuqin.**, Andrey A. Popov, Zhenlong Li, and Michael E. Hodgson. “A Sensor-Based Simulation Method for Spatiotemporal Event Detection.” *ISPRS International Journal of Geo-Information*, 13.5, 141 (2024); <https://doi.org/10.3390/ijgi13050153>.
- [13] Huang, Xinke, **Yuqin Jiang**, and Ali Mostafavi. “The emergence of urban heat traps and human mobility in 20 U.S. cities.” *npj Urban Sustainability*. 4.1 (2024): 6. <https://doi.org/10.1038/s42949-024-00142-3>.
- [12] **Jiang, Yuqin**, Faxi Yuan, Hamed Farahmand, Kushal Acharya, Jingdi Zhang, and Ali Mostafavi. “Data-driven tracking of the bounce-back path after disasters: critical milestones of population activity recovery and their spatial inequality.” *International Journal of Disaster Risk Reduction*, 92 (2023): 103693. <https://doi.org/10.1016/j.ijdr.2023.103693>.
- [11] **Jiang, Yuqin.**, Zhenlong Li, and Susan L. Cutter. “Social distance integrated gravity model for evacuation destination choice.” *International Journal of Digital Earth*. 14.8 (2021): 1004-1018. DOI: 10.1080/17538947.2021.1915396.
- [10] **Jiang, Yuqin**, Diansheng Guo, Zhenlong Li, Michael E. Hodgson. “A novel big data approach to measure and visualize urban accessibility.” *Computational Urban Science*. 1.1 (2021): 10. DOI: <https://doi.org/10.1007/s43762-021-00010-1>.

- [9] **Jiang, Yuqin**, Xiao Huang, and Zhenlong Li. “Spatiotemporal patterns of human mobility and its association with land use types during COVID-19 in New York City.” *ISPRS International Journal of Geo-Information*. 10.5 (2021):344. DOI: 10.3390/ijgi10050344
- [8] Li, Zhenlong, Xiao Huang, Xinyue Ye, **Yuqin Jiang**, Yago Martin, Huan Ning, Michael E. Hodgson, and Xiaoming Li. “Measuring Place Connectivity Using Big Social Media Data.” *Scientific Report*. 11.1 (2021): 14694. DOI: <https://doi.org/10.1038/s41598-021-94300-7>
- [7] Huang, Xiao, Zhenlong Li, **Yuqin Jiang**, Xinyue Ye, Chengbin Deng, Jiajia Zhang, and Xiaoming Li. “The characteristics of multi-source mobility datasets and how they reveal the luxury nature of social distancing in the U.S. during the COVID-19 pandemic.” *International Journal of Digital Earth*. 14.4 (2021): 424-442. DOI: 10.1080/17538947.2021.1886358
- [6] Li, Zhenlong, Shan Qiao, **Yuqin Jiang**, and Xiaoming Li. “Building a social media-based HIV risk behavior index to inform the prediction of HIV new diagnosis: a feasibility study.” *AIDS*. 35 (2021): S91-99. DOI: 10.1097/QAD.0000000000002787
- [5] Li, Zhenlong, Xiaoming Li, Dwayne Porter, Jiajia Zhang, **Yuqin Jiang**, Bankole Olatosi, and Sharon Weissman. “Monitoring the Spatial Spread of COVID-19 and Effectiveness of Control Measures Through Human Movement Data: Proposal for a Predictive Model Using Big Data Analytics.” *JMIR Research Protocols*. 9.12 (2020): e24432. DOI: 10.2196/24432
- [4] Huang, Xiao, Zhenlong Li, **Yuqin Jiang**, Xiaoming Li, and Dwayne Porter. “Twitter reveals human mobility dynamics during the COVID-19 pandemic.” *PLoS ONE*. 15.11 (2020): e0241957. DOI: 10.1371/journal.pone.0241957
- [3] Li, Zhenlong, Qunying Huang, **Yuqin Jiang**, and Fei Hu. “SOVAS: A Scalable Online Visual Analytic System for Big Climate Data Analysis.” *International Journal of Geographical Information Science*, 34.6 (2020), 1188-1209.
- [2] **Jiang, Yuqin**, Zhenlong Li, and Susan L. Cutter. “Social Network, Activity Space, Sentiment, and Evacuation: What Can Social Media Tell Us?.” *Annals of American Association of Geographers*, 109.6 (2019): 1795-1810.
- [1] **Jiang, Yuqin**, Zhenlong Li and Xinyue Ye. “Understanding Demographic and Socioeconomic Bias of Geotagged Twitter Users at the County Level.” *Cartography and Geographic Information Science*, 46.3 (2019): 228-242. DOI: 10.1080/15230406.2018.1434834

### ***Peer-reviewed Conference Paper***

[2] Su Y. Han, Joon-Soek Kim, **Yuqin Jiang**, Jeon-Young Kang, Jinwoo Park, Chaeyeon Han, Alexander Michels, Shaowen Wnag. “CyberGIS-Vis for democratizing access to scalable spatiotemporal geovisual analytics: a case study of COVID-19.” *SpatialEpi* ’24: *Proceedings of the 5th ACM SIGSPATIAL International Workshop on Spatial Computing for Epidemiology*. 2024.

[1] **Jiang, Yuqin**, Zhenlong Li, and Xinyue Ye. “Measuring inter-city network using digital footprints from Twitter users.” *Proceedings of the 2nd ACM SIGSPATIAL Workshop on Prediction of Human Mobility*. 2018.

### **PRESENTATIONS**

#### ***Invited Talks:***

[10] **Jiang, Y.** Access to Health Services. *Guest Speaker*. East Tennessee State University, Johnson City, TN, March 8, 2024

[9] **Jiang, Y.** Accessibility Measurement and Visualization – A Big Data Approach. *Guest Speaker*. Texas State University, San Marcos, TX, October 5, 2023

[8] **Jiang, Y.** Understanding Hurricane Evacuation Decisions using Social Media Data. *Guest Speaker*. Texas State University, San Marcos, TX, September 21, 2023

[7] Mostafavi, A. & **Jiang, Y.** Harnessing Big Data and AI to Augment Disaster Situational Awareness. *Applied Emergency Management Research Grant Symposium*, Texas Division of Emergency Management, College Station, TX, February 21, 2023

[6] **Jiang, Y.** Quantifying Human Mobility Patterns during Disruptive Events with Big Geospatial Data. *Construction, Geotechnical, and Structural Engineering Seminar*, Texas A&M University, College Station, TX, February 3, 2023

[5] Paal, S., Wang, Y., & **Jiang, Y.** Bring-Your-Own-Data Workshop: Exploratory Data Analysis, Texas A&M Institute of Data Science, Texas A&M University, College Station, TX, February 6, 2023

[4] **Jiang, Y.**, Social Media Big Data in Geographical Information Science. *Guest Lecturer*, University of South Carolina, Columbia, SC, December 3, 2019

[3] **Jiang, Y.**, Spatial Analysis with ArcGIS. *Guest Lecturer*, University of South Carolina, Columbia, SC, April 2, 2019

[2] **Jiang, Y.**, How to make maps?. *Guest Lecturer*, University of South Carolina, Columbia, SC, November 21, 2017

[1] Li, Z. & **Jiang, Y.**. Social Media, Human Movement, and the Eclipse, *Public Mini lecture on the Eclipse*, University of South Carolina, Columbia, SC, August 21, 2017

**Conferences:**

[16] **Jiang, Yuqin**, Zhenlong Li, Joon-Seok Kim, Huan Ning, Su Y. Han. Comparative Analysis of Human Mobility Patterns: Utilizing Taxi and SafeGraph Data to Investigate Neighborhood-Scale Mobility in New York City. *AAG Annual Meeting*, Detroit, MI, March, 28, 2025

[15] Han, S.Y., Kim, J., **Jiang, Y.**, Kang, J., Park, J., Han, C., Michels, A., Wang, S. CyberGIS-Vis for democratizing access to scalable spatiotemporal geovisual analytics: A case study of COVID-19. *SpatialEpi@ACM SIGSPATIAL 2024*. Atlanta, GA, October 29, 2024

[14] Han, S.Y., **Jiang, Y.**, Kim, J. CyberGIS-enabled geovisual analytics for exploring longitudinal neighborhood change. *Joint meeting of SWAAG & AGX*, San Marcos, TX, October 8, 2024

[13] Han, S.Y., **Jiang, Y.** CyberGIS approach to exploring longitudinal neighborhood change: A case study of Harris County, Texas. *AAG Annual Meeting*, Honolulu, HI, April 18, 2024

[12] **Jiang, Y.**, Yuan, Y., Han, S.Y. An entropy-based measurement for understanding origin-destination trip distributions: a case study of New York City taxis, *AAG Annual Meeting*, Honolulu, HI, April 16, 2024

[11] **Jiang, Y.**, Popov, A.A., Li, Z., Hodgson, M.E. A novel method for spatiotemporal event detection using Discrete Empirical Interpolation Method, *AAG Annual Meeting*, New York City & virtual, February 26, 2022

[10] **Jiang, Y.**, Li, Z., Cutter, S.L. Understanding human mobility pattern during hurricane evacuation, *Discover USC*, Columbia, SC (canceled due to COVID-19)

[9] **Jiang, Y.**, Li, Z., Cutter, S.L. Social connection integrated gravity modeling for evacuation destination choice, *AAG Annual Meeting*, Denver, CO (canceled due to COVID-19)

[8] **Jiang, Y.**, Li, Z., Cutter, S.L. Understanding human mobility pattern during hurricane evacuation with social media, *Big Data Health Science Conference*, Columbia, SC, February 10, 2020

[7] **Jiang, Y.**, Li, Z., Cutter, S.L., Analyzing Human Mobility Patterns during Hurricane Matthew Evacuation using Twitter, *AAG Annual Meeting*, Washington DC, April 5, 2019

- [6] **Jiang, Y.**, Li, Z., Ye, X. Measuring inter-city network using digital footprints from Twitter users, *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on PredictGIS*, Seattle, WA, USA. November 6, 2018
- [5] **Jiang, Y.**, Li, Z. Social Network, Activity Space, Sentiment and Evacuation: What can Social Media Tell us?, *AAG Annual Meeting*, Artificial Intelligence and Deep Learning Symposium: Big Data and Mining for Natural Hazards Session, *AAG Annual Meeting*. New Orleans, LA. April 13, 2018
- [4] Li, Z., Huang, Q., **Jiang, Y.**, Hu, F., SCOVAS: A Scalable Climate Online Visual Analytical System, *AAG Annual Meeting*. New Orleans, LA. April 13, 2018
- [3] **Jiang, Y.** Measuring Multimodal Transit Accessibility in Urban Area – A Big Data Approach, *AAG Annual Meeting*, Transportation and Geospatial Modeling Session, Boston, MA. April 9, 2017
- [2] **Jiang, Y.** Measuring Accessibility in Urban Area – A Big Data Approach, *Symposium on Research Computing Infrastructure*. University of South Carolina, Columbia, SC, April 15, 2016
- [1] **Jiang, Y.** Measuring Accessibility in Urban Area: Case Study in New York City, *AAG Annual Meeting*, Spatial Data Mining and Big Data Analytics Session, San Francisco, CA. March 29, 2016

## TEACH

2025 Spring	<b>Instructor</b> <i>Introduction to GIS (GEO 388)</i>
2024 Fall	<b>Instructor</b> <i>Introduction to GIS (GEO 388)</i>
2022 Spring	<b>Teaching Assistant</b> <i>Geographic Information Systems (GEOG 363)</i>
2021 Fall	<b>Teaching Assistant</b> <i>Geographic Information Systems (GEOG 363)</i>
2021 Fall	<b>Teaching Assistant</b> <i>Quantitative Methods in Geographic Research (GEOG531)</i>
2019 Spring	<b>Instructor</b> <i>Digital Earth (GEOG 105)</i>
2018 Fall	<b>Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2018 Spring	<b>Instructor</b> <i>Digital Earth (GEOG 105)</i>
2017 Fall	<b>Lab Instructor</b> <i>Interpretation of Aerial Photo (GEOG 345)</i>
2017 Fall	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2017 Fall	<b>Teaching Assistant</b> <i>GIS-Based Modeling (GEOG 564)</i>
2017 Spring	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2016 Fall	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2016 Spring	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2015 Fall	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>
2015 Spring	<b>Lab Instructor</b> <i>Geographic Information Systems (GEOG 363)</i>



## SERVICE

- 2024            Program Committee, I-GUIDE Forum 2024 Convergence Science and Geospatial AI for Environmental Sustainability
- 2022 – 2023   Ad hoc reviewer for NSF proposals, Human-Environment and Geographical Science Program
- 2022            Organizer and chair for AAG session “Symposium on Human Dynamics Research: Human Mobility in Big Data Era I & II”, New York City & virtual
- 2021            Selection Committee for “Methods Training for Students” – COVID-19 Task Force Program, American Association of Geography
- 2020            Volunteer for Big Data Health Science Conference. University of South Carolina, Columbia, SC
- 2020            Organizer and chair for AAG session “Symposium on Human Dynamics Research: Human Mobility in Big Data Era” (canceled due to COVID-19)
- 2019 – 2020   Student Board, Cyberinfrastructure Specialty Group, American Association of Geography

## GUEST EDITOR

*Sustainability* Special Issue: GeoAI Innovations in Urban Resilience and Climate Adaptation

## JOURNAL REVIEWS (year[reviews])

The Professional Geographer (2024[1])  
Cities (2024[2])  
Big Earth Data (2024[1])  
Digital Geography and Society (2024[2])  
Knowledge and Information Systems (2024[1])  
Computational Urban Science (2024[1], 2025[1])  
Theoretical and Applied Climatology (2024[1])  
Electronics (2024[1])  
Geo-spatial Information Science (2023[1])  
Land (2023[1], 2024[3])  
International Journal of Digital Earth (2018[3], 2021[1], 2022[1])  
PlosONE (2018[1], 2019[1], 2021[2], 2023[1])  
Annals of American Association of Geographers (2019[1], 2021[1])  
Applied Geography (2020[1])



International Journal of Geo-Information (2021[4], 2023[2], 2024[1])  
Sustainability (2021[1], 2024[1])  
Scientific Report (2021[2], 2023[1])  
International Journal of Applied Earth Observation and Geoinformation (2021[1],  
2022[1], 2023[1])

## **MENTORING**

### **As Committee Chair**

[1] Aleksandras Krifaridi, M.A. student, Department of Geography and Environment,  
University of Hawai‘i at Mānoa (2025 – present)

### **As Committee Member**

- [1] Justin Kellum, M.A. student, Department of Geography and Environment, University  
of Hawai‘i at Mānoa (2024 – present)  
[2] Sophia Somerscales, M.A. student, Department of Geography and Environment,  
University of Hawai‘i at Mānoa (2024 – present)  
[3] Karen Suh-Yeon Lee, M.A. student, Department of Geography and Environment,  
University of Hawai‘i at Mānoa (2024 – present)

### **As Research Mentor**

Ana Jimenez	Undergraduate Researcher Computer Science, Texas A&M University
David Bell	Undergraduate Researcher Mechanical Engineering, Texas A&M University
Yu Heng Chien	Master student Computer Science, Texas A&M University
Sanjay Nayak	Master student Computer Science, Texas A&M University
Xinke (Ada) Huang	Ph.D. student Civil and Environmental Engineering, Texas A&M University
Xiangpeng Li	Ph.D. student Civil and Environmental Engineering, Texas A&M University
Akhil Anil Rajput	Ph.D. student Civil and Environmental Engineering, Texas A&M University
Kai Yin	Ph.D. student Civil and Environmental Engineering, Texas A&M University
Priyanjali Bose	Ph.D. student Geography and Environment Studies, Texas State University
Kira Webster	Ph.D. student Geography and Environment, University of Hawai‘i at Mānoa

## **PROFESSIONAL MEMBERSHIP**

2014-present American Association of Geographers (AAG)

- 2017-2022     Southeastern Division of the American Association of Geographers  
                    (SEDAAG)
- 2017-present   International Association of Chinese Professional in Geographic  
                    Information Sciences (CPGIS)