

**YUJIE HU**

Associate Professor | Department of Geography | University of Florida

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**EDUCATION**

- 2016 Ph.D., Geography, Louisiana State University
- 2012 M.S., Cartography and GIS, East China Normal University
- 2009 B.S., GIS, North China University of Water Resources and Electric Power

**PROFESSIONAL APPOINTMENTS**

- 2025 – present Graduate Coordinator, Department of Geography, University of Florida
- 2024 – present Associate Professor, Department of Geography, University of Florida
- 2019 – 2024 Assistant Professor, Department of Geography, University of Florida
- 2023 – 2025 Adjunct Faculty, Anita Zucker Center for Excellence in Early Childhood Studies, University of Florida
- 2019 – present Affiliate Faculty, Informatics Institute, University of Florida
- 2019 – present Affiliate Faculty, Transportation Institute, University of Florida
- 2017 – 2019 Assistant Professor, School of Geosciences, University of South Florida
- 2016 – 2017 Research Fellow, Kinder Institute for Urban Research, Rice University
- 2012 – 2016 Research Assistant, Department of Geography & Anthropology, Louisiana State University
- 2011 – 2012 Research Scholar, Department of Geography, University of Utah

**FELLOWSHIPS, HONORS, AND AWARDS**

**Professional Honors and Awards**

- 2019 – 2020 Ralph E. Powe Junior Faculty Enhancement Awards, Oak Ridge Associated Universities
- 2017 – 2022 Fellow, Kinder Institute for Urban Research, Rice University
- 2016 William Haag Graduate Award, Department of Geography & Anthropology, Louisiana State University
- 2016 Student Travel Award, Urban Geography Specialty Group, American Association of Geographers
- 2015 AAG International Geographic Information Fund Student Travel Grants, The Association of American Geographers
- 2014 Outstanding Graduate Student Research Award, Southeastern Association of State Highway and Transportation Officials
- 2014 Graduate Student Research Paper Award, East China Normal University
- 2011 Excellent Graduate Student Fellowship, East China Normal University

**Awards Received by Advisees**

2025	Student Travel Grant, American Association of Geographers (Yue Jing)
2025	Jeane X. Kasperson Student Paper Award, Hazards, Risk, and Disasters Specialty Group, American Association of Geographers (Md. Shaharier Alam)
2025	Student Travel Award, Spatial Analysis and Modeling Specialty Group, American Association of Geographers (Md. Shaharier Alam)
2025	Graduate Student Council Travel Grant, University of Florida (Yue Jing; Zeyu He)
2025	Excellence in Teaching Award, Department of Geography, University of Florida (Yue Jing)
2025	Top Published Student Research Paper Award, Department of Geography, University of Florida (Jinpeng Wang)
2025	Graduate Student Travel Grant, Department of Geography, University of Florida (Yue Jing; Zeyu He)
2025	Evan Coe Travel Award for Medical Geography, Department of Geography, University of Florida (Md. Shaharier Alam)
2024	Student Travel Grant, American Association of Geographers (Md. Shaharier Alam)
2024	Grinter Award, University of Florida (Jinpeng Wang)
2024	Graduate Student Council Travel Grant, University of Florida (Yue Jing; Zeyu He; Jinpeng Wang; Md. Shaharier Alam)
2024	Top Published Student Research Paper Award, Department of Geography, University of Florida (Yue Jing)
2024	Graduate Student Travel Grant, Department of Geography, University of Florida (Yue Jing; Zeyu He)
2023	Graduate Student Council Travel Grant, University of Florida (Yue Jing; Jinpeng Wang)
2023	Graduate Travel Grant, College of Liberal Arts and Sciences, University of Florida (Yue Jing)
2023	Top Published Student Research Paper Award, Department of Geography, University of Florida (Yue Jing)
2023	Graduate Student Travel Grant, Department of Geography, University of Florida (Yue Jing)

**PROFESSIONAL AFFILIATIONS**

2015 – present	American Association of Geographers
2017 – present	American Association for the Advancement of Science
2018 – present	International Association of Chinese Professionals in Geographic Information Sciences
2020 – present	International Network for Social Network Analysis
2020 – present	Network Science Society
2020 – 2021	Network on European Communications and Transport Activities Research
2018 – 2020	Southeastern Division of the American Association of Geographers

## RESEARCH EXPERIENCE

### PUBLICATIONS

#### Peer-Refereed Journal Articles

1. Jing, Y., Hu, Y., Chen, C., & Cohan, D. S. (2026). Evaluating human mortality impacts from air pollution as US commuting reaches its extremes. *Journal of Transport Geography*, 131, 104541.
2. Niedzielski, M. A., & Hu, Y. (2025). Social inequities in the transition to environmentally optimized commuting. *Scientific Reports*, 16, 1098.
3. Wang, J., & Hu, Y. (2025). Visualizing complex mobility patterns using backbone networks. *Transportation*, <https://doi.org/10.1007/s11116-025-10694-7>.
4. Wang, J., & Hu, Y. (2025). Constructing the commuting backbone network dataset for the United States. *Scientific Data*, 12, 1267.
5. Alam, M. S., & Hu, Y. (2025). Mobility disruption and recovery in southwest Florida’s elderly-dense communities during Hurricane Ian. *Transportation Research Part D: Transport and Environment*, 141, 104648.
6. Yuan, Q., Hu, Y., Steiner, R., Manini, T. M., & Bai, X. (2025). Mindful walks: Understanding the connection between street characteristics and recreational walking routes in older adults with cognitive concerns. *Cities*, 162, 105969.
7. Luo, C., Hu, Y., & Wang, F. (2025). A big data approach to mitigating the MAUP in measuring excess commuting. *Computational Urban Science*, 5(1), 14.
8. Luo, C., Hu, Y., & Wang, F. (2025). A big data approach to modelling urban population density functions: from monocentricity to polycentricity. *Annals of GIS*, 31(2), 273-286.
9. Huang, J., & Hu, Y. (2025). A systematic review of immersive virtual reality applications in geography higher education. *Journal of Geography in Higher Education*, 49(3), 295-312.
10. Xu, A., Hu, Y., & Wang, J. (2025). Unraveling the COVID-19 Impact on Spatiotemporal Dynamics of U.S. Domestic Migration: A Network Perspective. *The Professional Geographer*, 77(2), 104-120.
11. Downs, J., Hu, Y., & Tao, R. (2025). A Waypoint-Based Flow Capture Location Model for Siting Facilities on Transportation Networks. *Future Transportation*, 5(3), 93.
12. Wang, J., & Hu, Y. (2024). Unraveling hurricane Ian’s Impact: A multiscale analysis of mobility networks in Florida. *Transportation Research Part D: Transport and Environment*, 136, 104482.
13. Wang, J., Hu, Y., Duan, L., & Michailidis, G. (2024). Analysing and visualising mobility vulnerability and recovery across Florida neighbourhoods: a case study of Hurricane Ian. *Regional Studies, Regional Science*, 11(1), 384-386.
14. He, Z., Hu, Y., Duan, L. L., & Michailidis, G. (2024). Returners and explorers dichotomy in the face of natural hazards. *Scientific Reports*, 14(1), 13184.
15. Hu, Y., Sherlock, P., Huang, J., Knopf, H. T., & Hall, J. M. (2024). Unveiling spatial mismatch in childcare supply and demand: An excess commuting analysis of home-to-childcare distance in subsidized families. *Journal of Transport Geography*, 116, 103829.

16. Jing, Y., & Hu, Y. (2024). Multiscale Complex Network Analysis of Commuting Efficiency: Urban Connectivity, Hierarchy, and Labor Market. *Annals of the American Association of Geographers*, 114(8), 1681-1692.
17. Qiu, J., Jing, Y., Peng, W., Du, L., & Hu, Y. (2024). Identifying critical transfer zones to coordinate transit with on-demand services using crowdsourced trajectory data, *Journal of Intelligent Transportation Systems*, 28(3), 386-408.
18. Tanim, S. H., Reader, S., & Hu, Y. (2023). Predicting hurricane evacuation for local neighborhoods across a metropolitan region. *International Journal of Disaster Risk Reduction*, 99, 104117.
19. Xu, M., Zhou, H., Hu, Y., & Duan, L. L. (2023). Bayesian inference using the proximal mapping: Uncertainty quantification under varying dimensionality. *Journal of the American Statistical Association*, DOI: 10.1080/01621459.2023.2220170.
20. Hu, Y., & Huang, J. (2023). Delineating and comparing local labor market geographies of Millennials, Generation Xers, and Baby Boomers. *Travel Behaviour and Society*, 30, 325–334.
21. Jing, Y., Hu, Y., & Niedzielski, M. A. (2023). Neighborhood divides: Where you live matters for commuting and its efficiency. *Cities*, 132, 104091.
22. Han, Y., Hu, Y., Zhu, H., & Wang, F. (2023). A cyclically adjusted spatio-temporal kernel density estimation method for predictive crime hotspot analysis. *Annals of GIS*, 29(2), 177-191.
23. Hu, Y. (2022). The unequal commute: Comparing commuting patterns across income and racial worker subgroups. *Environment and Planning A: Economy and Space*, 54(3), 437-440.
24. Jing, Y., & Hu, Y. (2022). The unequal commuting efficiency: A visual analytics approach. *Journal of Transport Geography*, 100, 103328.
25. Haider, Z., Hu, Y., Charkhgard, H., Himmelgreen, D., & Kwon, C. (2022). Creating grocery delivery hubs for food deserts at local convenience stores via spatial and temporal consolidation. *Socio-Economic Planning Sciences*, 82, 101301.
26. Luo, J., Hu, Y., Davids, K., Zhang, D., Gouin, C., Li, X., & Xu, X. (2022). Vision-based movement recognition reveals badminton player footwork using deep learning and binocular positioning. *Heliyon*, 8(8), e10089.
27. Bohnett, E., Vacca, R., Hu, Y., Hulse, D., & Varda, D. (2022). Resilience and fragmentation in healthcare coalitions: The link between resource contributions and centrality in health-related interorganizational networks. *Social Networks*, 71, 87-95.
28. Glover, B., Mao, L., Hu, Y., & Zhang, J. (2022). Enhancing the Retail Food Environment Index (RFEI) with Neighborhood Commuting Patterns: A Hybrid Human– Environment Measure. *International Journal of Environmental Research and Public Health*, 19(17), 10798.
29. Liu, Y., Ruiz-Menjivar, J., Hu, Y., Zavala, M., & Swisher, M. E. (2022). Knowledge Mapping of the Extant Literature on the Environmental Impacts of Using Cover Crops—A Scientometric Study. *Environments*, 9(9), 120.
30. Tanim, S. H., Wiernik, B. M., Reader, S., & Hu, Y. (2022). Predictors of hurricane evacuation decisions: A meta-analysis. *Journal of Environmental Psychology*, 79, 101742.

31. Hu, Y. & Li, X. (2021). Modeling and analysis of excess commuting with trip chains. ***Annals of the American Association of Geographers***, 111(6), 1851-1867.
32. Huang, J., Hu, Y., Wang, J., & Li, X. (2021). A tale of two cities: Jobs–housing balance and urban spatial structures from the perspective of transit commuters. ***Environment and Planning B: Urban Analytics and City Science***, 48(6), 1543-1557.
33. Wang, D., White, J. R., Delaune, R. D., Yu, Z., & Hu, Y. (2021). Peripheral freshwater deltaic wetlands are hotspots of methane flux in the coastal zone. ***Science of The Total Environment***, 775, 145784.
34. Zhang, F., Fan, Z., Kang, Y., Hu, Y., & Ratti, C. (2021). “Perception bias”: Deciphering a mismatch between urban crime and perception of safety. ***Landscape and Urban Planning***, 207, 104003.
35. Mardini, M. T., Nerella, S., Kheirkhanan, M., Ranka, S., Fillingim, R. B., Hu, Y., ... & Manini, T. M. (2021). The Temporal Relationship Between Ecological Pain and Life-Space Mobility in Older Adults With Knee Osteoarthritis: A Smartwatch-Based Demonstration Study. ***JMIR mHealth and uHealth***, 9(1), e19609.
36. Downs, J., Buck, C., Qarah, F., & Hu, Y. (2020). Spatial analysis of potential nesting habitat for Florida sandhill cranes. ***Journal of Fish and Wildlife Management***, 11(2), 443-454.
37. Hu, Y., Wang, C., Li, R., & Wang, F. (2020). Estimating a large drive time matrix between ZIP codes in the United States: A differential sampling approach. ***Journal of Transport Geography***, 86, 102770.
38. Niedzielski, M. A., Hu, Y., & Stępniaak, M. (2020). Temporal dynamics of the impact of land use on modal disparity in commuting efficiency. ***Computers, Environment and Urban Systems***, 83, 101523.
39. Zhu, Y. J., Hu, Y., & Collins, J. M. (2020). Estimating road network accessibility during a hurricane evacuation: A case study of hurricane Irma in Florida. ***Transportation Research Part D: Transport and Environment***, 83, 102334.
40. Wang, F., Wang, C., Hu, Y., Weiss, J., Alford-Teaster, J., & Onega, T. (2020). Automated delineation of cancer service areas in northeast region of the United States: a network optimization approach. ***Spatial and Spatio-temporal Epidemiology***, 33, 100338.
41. Antipova, A., Sultana, S., Hu, Y., & Rhudy, J. P. (2020). Accessibility and Transportation Equity. ***Sustainability***, 12, 3611.
42. Balomenos, G. P., Hu, Y., Padgett, J. E., & Shelton, K. (2019). Impact of Coastal Hazards on Residents’ Spatial Accessibility to Health Services. ***Journal of Infrastructure Systems***, 25(4): 04019028.
43. Hu, Y., Zhang, Y., Lamb, D., Zhang, M., & Jia, P. (2019). Examining and optimizing the BCycle bike-sharing system – A pilot study in Colorado, US. ***Applied Energy***, 247: 1-12.
44. Hu, Y. & Downs, J. (2019). Measuring and Visualizing Place-Based Space-Time Job Accessibility. ***Journal of Transport Geography***, 74: 278-288.
45. Hu, Y., Wang, F., Guin, C., & Zhu, H. (2018). A Spatio-Temporal Kernel Density Estimation Framework for Predictive Crime Hotspot Mapping and Evaluation. ***Applied Geography***, 99: 89-97.
46. Hu, Y., Zhang, Y., & Shelton, K. S. (2018). Where are the Dangerous Intersections for Pedestrians and Cyclists: A Colocation-Based Approach. ***Transportation Research Part C: Emerging Technologies***, 95: 434-441.
47. Hu, Y., Wang, F., & Xierali, I. (2018). Automated Delineation of Hospital Service Areas and Hospital Referral Regions by Modularity Optimization. ***Health Services Research***, 53(1): 236-255.

48. Xu, T., Xu, X., Hu, Y., & Li, X. (2017). An entropy-based approach for evaluating travel time predictability based on vehicle trajectory data. *Entropy*, 19(4), 165.
49. Hu, Y., Wang, F., & Wilmot, C. G. (2017). Commuting variability by wage groups in Baton Rouge, 1990–2010. *Papers in Applied Geography*, 3(1), 14-29.
50. Wang, F., Hu, Y., Wang, S., & Li, X. (2017). Local Indicator of Colocation Quotient with a Statistical Significance Test: Examining Spatial Association of Crime and Facilities. *The Professional Geographer*, 69(1): 22-31.
51. Hu, Y., & Wang, F. (2016). Temporal trends of intraurban commuting in Baton Rouge, 1990–2010. *Annals of the American Association of Geographers*, 106(2), 470-479.
52. Ikram, S. Z., Hu, Y., & Wang, F. (2015). Disparities in spatial accessibility of pharmacies in Baton Rouge, Louisiana. *Geographical Review*, 105(4), 492-510.
53. Hu, Y., & Wang, F. (2015). Decomposing excess commuting: A Monte Carlo simulation approach. *Journal of Transport Geography*, 44, 43-52.
54. Hu, Y., Miller, H. J., & Li, X. (2014). Detecting and analyzing mobility hotspots using surface networks. *Transactions in GIS*, 18(6), 911-935.
55. Liu, L., Wang, D., Deng, H., Li, Y., Chang, S., Wu, Z., ... & Chen, Z. (2014). The capability of estuarine sediments to remove nitrogen: implications for drinking water resource in Yangtze Estuary. *Environmental Science and Pollution Research*, 21(18), 10890-10899.
56. Li, X., Hu, Y., Xie, J., & Sun, J. (2013). An efficient approach to building image-based road network model. *Annals of GIS*, 19(4), 209-217.
57. Xu, X., Li, X., Hu, Y., & Peng, Z. (2012). A novel algorithm to identifying vehicle travel path in elevated road area based on GPS trajectory data. *Frontiers of Earth Science*, 6(4), 354-363.
58. Hu, Y., & Li, X. (2010). Find a center's service area of a geographic network by the shortest path algorithm (in Chinese with English abstract). *Geography and Geo-Information Science* 26(3): 111-112.

### Books & Book Chapters

59. Hu, Y. & Wang, F. (2018). *GIS-Based Simulation and Analysis of Intra-Urban Commuting*. Boca Raton, FL: **CRC Press**.
60. Hu, Y., & Reader, S. (2019). GIS and Health. In B. Warf (Ed.). *Oxford Bibliographies in "Geography"*. New York: Oxford University Press. DOI: [10.1093/obo/9780199874002-0211](https://doi.org/10.1093/obo/9780199874002-0211).
61. Hu, Y., & Wang, F. (2017). Temporal Trends of Intraurban Commuting in Baton Rouge, 1990–2010. In M. Kwan & T. Schwanen (Eds.). *Geographies of Mobility: Recent Advances in Theory and Method*. New York: Routledge.
62. Hu, Y., & Wang, F. (2015). Monte Carlo Method and Application in Urban Traffic Simulation. In F. Wang (Ed.). *Quantitative Methods and Socioeconomic Applications in GIS* (2nd ed.). Boca Raton, FL: CRC Press.

### Book Reviews

63. Gouin, C., & Hu, Y. (2023). Right of Way: Race, Class, and the Silent Epidemic of Pedestrian Deaths in America by Angie Schmitt. *Southeastern Geographer*, 63(1), 119-122.

#### Peer-Refereed Conference Proceedings

64. Chen, Q., Yi, H., Hu, Y., Xu, X., & Li, X. (2018, June). A New Method of Selecting K-means Initial Cluster Centers Based on Hotspot Analysis. In *2018 26th International Conference on Geoinformatics* (pp. 1-6). IEEE.
65. Ye, J., Hu, Y., Xu, X., Yi, H., & Li, X. (2018, June). Evaluate Errors of 1-median Model: A Case Study in Spring Hill, FL, US. In *2018 26th International Conference on Geoinformatics* (pp. 1-6). IEEE.
66. Hu, Y., Li, X., Xie, J., & Guo, L. (2011, June). A novel approach to extracting street lamps from vehicle-borne laser data. In *2011 19th International Conference on Geoinformatics* (pp. 1-6). IEEE.
67. Hu, Y., Li, X., & Li, M. (2010, May). A novel approach to delineating the service area of facilities in a network. In *2010 2nd International Conference on Future Computer and Communication* (Vol. 2, pp. V2-35). IEEE.

#### Policy Briefs/Research Reports

68. Knopf, H. T., Pages, R., Sherlock, P., Chapman, R., Daley, D., Huang, J., Schreiber, M., Wang, Y., Li, J., Schmidt, E., & Hu, Y. (2023). Understanding the Determinants of Parent Enrollment in Florida’s Voluntary Prekindergarten Education Program and Florida’s School Readiness Program. [Submitted to the Florida Division of Early Learning]. *University of Florida: Anita Zucker Center for Excellence in Early Childhood Studies*, December.
69. Wu, J., Hu, Y., Zhang, M., & Patterson, G. (2018). Accessing Opportunity: Employment and Community Patterns among Low-, Medium-, and High-Wage Workers in Houston. *Rice University: Kinder Institute for Urban Research*, October.
70. Hu, Y., & Shelton, K. (2017). Dangerous Crossings: The Links Between Intersections and Crashes in Houston. *Rice University: Kinder Institute for Urban Research*, June.

#### GRANTS

##### Awarded

- |                            |  |
|----------------------------|--|
| 07/01/2023 –<br>06/30/2028 | Co-I, Sunshine State Early Childhood Information Portal, Florida Division of Early Learning, \$7,727,242 (PI – Knopf, H. T.)   |
| 09/01/2023 –<br>08/31/2026 | Co-PI, Collaborative Research: ATD: Geospatial Modeling and Risk Mitigation for Human Movement Dynamics under Hurricane Threats, National Science Foundation, \$255,000 (PI – Duan, L.)  |
| 07/01/2022 –<br>06/30/2023 | Co-I, Sunshine State Early Childhood Information Portal: Florida’s Early Childhood Integrated Data System Year 3, US Administration for Children and Families Preschool Development Grant B-5, Florida’s Office of Early Learning, \$787,543 (PI – Knopf, H. T.) |

- 06/22/2020 – PI, Socioeconomic Impacts of COVID-19: A Criminological Perspective, UFII COVID-19  
12/22/2020 Response Seed Funding, \$20,000
- 08/16/2019 – PI, Automated Delineation of Hospital Service Areas and Hospital Referral Regions, Oak  
05/31/2020 Ridge Associated Universities, \$10,000
- 02/15/2019 – Co-PI, Incorporating mixed automated vehicle traffic in capacity analysis and system  
02/14/2020 planning decisions, CTEDD: Center for Transportation Equity, Decisions and Dollars, US  
DOT, \$35,000 (PI – Li, X.)
- 09/01/2017 – Consultant, Automated Delineation of Cancer Service Areas, The National Cancer  
08/31/2018 Institute (NCI), National Institutes of Health (NIH), \$10,000 (PI – Onega, T. & Wang, F.)

### Unawarded (Last Two Years)

- 01/2024 – PI, Traveling the Extra Mile: How Much Further Do Low-Income Families Have to Travel  
12/2024 to Access Child Care?, Spencer Foundation, \$50,000
- 01/2024 – PI, Collaborative Research: CLIMA: Risk-Informed and Demand-Aware Hurricane  
12/2026 Resilience Enhancement of Regional Telecommunication Infrastructure, National  
Science Foundation, \$208,584
- 09/2023 – PI, Dynamics of Urban Human Mobility Under the Influences of Social Vulnerability and  
08/2026 Natural Hazards, National Science Foundation, \$401,483
- 01/2023 – PI, Collaborative Research: Risk-informed and demand-driven proactive planning for  
12/2025 post-earthquake telecommunication restoration in the 5G era, National Science  
Foundation, \$200,000
- 05/2023 – PI, CAREER: Leveraging Geographic Science and Network Science to Develop Novel  
04/2028 Models, National Science Foundation, \$529,312
- 09/2022 – PI, HNDS-R: Urban human mobility socioeconomic inequalities and dynamics under  
08/2025 natural hazards, National Science Foundation, \$312,333
- 09/2022 – PI, Vulnerability assessment and mitigation of transportation infrastructure in coastal  
08/2026 urban-rural systems: modeling access to essential services using multisource big data,  
National Science Foundation, \$500,000

### PRESENTATIONS AT PROFESSIONAL CONFERENCES

- 2025 Unraveling hurricane Ian's Impact: A multiscale analysis of mobility networks in Florida.  
AI and Cities: An International Forum for Innovation and Collaboration, Virtual, May 10.
- 2025 Unraveling hurricane Ian's Impact: A multiscale analysis of mobility networks in Florida.  
AAG Annual Meeting 2025, Detroit, Michigan, March 27.
- 2023 Delineating and Comparing Local Labor Market Geographies of Millennials, Generation  
Xers, and Baby Boomers Using Spatial Networks. AAG Annual Meeting 2023, Denver,  
Colorado, March 23.

- 2021 Automated Delineation of Hospital Service Areas and Hospital Referral Regions by Modularity Optimization. Networks 2021: A Joint Sunbelt and NetSci Conference, virtual, July 6.
- 2021 Automated Delineation of Hospital Service Areas and Hospital Referral Regions by Modularity Optimization. The 28th International Conference on Geoinformatics, virtual, November 1.
- 2019 Where are the Dangerous Intersections for Pedestrians and Cyclists: A Colocation-Based Approach. The 49th Urban Affairs Association Annual Conference, Los Angeles, California, April 25.
- 2019 Where are the Dangerous Intersections for Pedestrians and Cyclists: A Colocation-Based Approach. AAG Annual Meeting 2019, Washington DC, April 3.
- 2018 Where are the Dangerous Intersections for Pedestrians and Cyclists: A Colocation-Based Approach. SEDAAG Annual Meeting 2018, Johnson City, Tennessee, November 18.
- 2018 Temporal Trends of Intraurban Commuting Patterns and Efficiency in Baton Rouge 1990-2010. AAG Annual Meeting 2018, New Orleans, Louisiana, April 11.
- 2017 Decomposing Excess Commuting: A Monte Carlo Simulation Approach. AAG Annual Meeting 2017, Boston, Massachusetts, April 6.
- 2016 Local Indicator of Colocation Quotient with a Statistical Significance Test: Examining Spatial Association of Crime and Facilities. AAG Annual Meeting 2016, San Francisco, California, April 1.
- 2016 Delineation of Hospital Service Areas and Hospital Referral Regions by Modularity Optimization. AAG Annual Meeting 2016, San Francisco, California, March 30.
- 2015 Place-Based Commuting Variability by Wage Groups in Baton Rouge 1990-2010. AAG Annual Meeting 2015, Chicago, Illinois, April 25.
- 2014 Using Monte Carlo Simulation to Estimate Travel Demand and Excess Commuting. SASHTO 2014, New Orleans, Louisiana, August 25.
- 2013 Storm Surge Simulation with LiDAR Digital Elevation Model – a Hydrologically Enforced Approach. The 29<sup>th</sup> Annual Louisiana Remote Sensing and GIS Workshop, Lafayette, Louisiana, April 23.
- 2011 A Novel Approach to Extracting Street Lamps from Vehicle-Borne Laser Data. The 19th International Conference on Geoinformatics, Shanghai, China, June 25.
- 2010 A Novel Approach to Delineating the Service Area of Facilities in Network. The 2nd International Conference on Future Computer and Communication, Wuhan, China, May 22.

#### **PRESENTATIONS AT WORKSHOPS**

- 2017 Dangerous Crossings: The Relationship Between Intersections and Crashes in Houston. NNIP Idea Showcase, Urban Institute, July 20.

- 2017 Examining the Colocation Patterns between Traffic Crashes and Intersections. The Center for Texas Beaches and Shores Workshop at Texas A&M University, Galveston, Texas, March 2.

#### **CONFERENCE SESSION ORGANIZER**

- 2025 Organizer and chair, Spatial-social networks 1, AAG Annual Meeting 2025, Detroit, March 24-28.
- 2025 Organizer and chair, Spatial-social networks 2, AAG Annual Meeting 2025, Detroit, March 24-28.
- 2025 Organizer and chair, Spatial-social networks 3, AAG Annual Meeting 2025, Detroit, March 24-28.
- 2019 Organizer and chair, Travel and the built environment session, AAG Annual Meeting 2019, Washington DC, April 3-7.
- 2019 Organizer, Accessibility and the journey-to-work session, AAG Annual Meeting 2019, Washington DC, April 3-7.

#### **INVITED TALKS**

- 2024 Multi-Scale Analysis of Mobility Networks in Florida during Hurricane Ian: Insights and Implications. The 2024 International Graduate Workshop on Geo-Informatics (IGWG), Peking University, Beijing, China, October 27, 2024.
- 2024 Modeling of Commuting Flows, Travel Distance, and Encounter Networks. Department of Epidemiology Seminar Series, University of Florida, May 2, 2024.
- 2023 Modeling and Analysis of Excess Commuting with Trip Chains. Department of Geography Colloquium Series, University of Florida, April 20, 2023.
- 2021 Constructing Optimal Geographic Units for Health Care Markets. Department of Geography Seminar Series, Florida State University, October 15, 2021.
- 2020 Examining the relationship between COVID-19 and crime—A pilot study in Florida. UFII COVID-19 SEED Awardees Virtual Seminar Series, University of Florida, December 5, 2020.
- 2019 Detecting the Dangerous Intersections for Pedestrians and Cyclists using GIS. Institute of Transportation Engineers Seminar, University of Florida, October 24.
- 2019 Socio-Economic Applications of GIS. International Center for Adaption Planning and Design Seminar, University of Florida, September 27.
- 2018 Where are the Dangerous Intersections for Pedestrians and Cyclists: A Colocation-Based Approach. Transportation Research Seminar, Center for Urban Transportation Research, University of South Florida, March 2.

#### **MEDIA COVERAGE**

- 2023 “Lack of affordable homes means longer commute times for more people in the Tampa metro area,” WUSF Public Media - WUSF 89.7. <https://wusfnews.wusf.usf.edu/local-state/2023-02-13/lack-of-affordable-homes-means-longer-commute-times-for-more-people-in-the-tampa-metro-area>, February 14.
- 2017 “Study: Intersections With Traffic Lights Are Nine Times More Dangerous,” Houston Public Media News 88.7 (radio). <https://www.houstonpublicmedia.org/articles/news/2017/07/12/221185/study-intersections-with-traffic-lights-are-nine-times-more-dangerous/>, July 12.
- 2017 “New study finds intersections with stoplights more likely to see deadly crashes,” ABC13 EYEWITNESS NEWS at 6PM (TV). <http://abc13.com/news/intersections-with-stoplights-likely-to-see-crashes/2087712/>, June 12.

**TEACHING AND MENTORING EXPERIENCE**

**CHAired PHD COMMITTEES**

**University of Florida**

- 2025 Yue Jing, “Social and economic dimensions of commuting efficiency.”
- 2022 – present Zeyu He
- 2023 – present Md. Shaharier Alam
- 2024 – present Jinpeng Wang
- 2025 – present Erin Mariotti

**MEMBERSHIP ON PHD COMMITTEES**

**University of Florida**

- 2021 – present Jawata Saba, Geography
- 2022 – present Debjani Das, Geography
- 2022 – present David Russell, Geography
- 2023 Yuting An, Health and Human Performance
- 2023 Charles Grigsby-Calage, Food and Resource Economics
- 2023 Luwei Wang, Design, Construction & Planning
- 2022 Ammar Mandourah, Forest Resources & Conservation

**University of South Florida**

- 2021 Xiaowei Shi, Transportation Engineering
- 2020 Zulqarnain Haider, Industrial Engineering
- 2020 Michelle Saunders, Geography, Environmental Science & Policy
- 2019 Natalia Barbour, Transportation Engineering

2017 – 2021	Shakhawat Tanim, Geography, Environmental Science & Policy
2019 – 2020	Yijie Zhu, Geography, Environmental Science & Policy
2018 – 2019	Saurav Chakraborty, Geography, Environmental Science & Policy
2018 – 2019	Nodjidoumde Mbaigoto, Geography, Environmental Science & Policy
2018 – 2019	Lubana Mazumder, Geography, Environmental Science & Policy
2018 – 2019	Jeff Burton, Geography, Environmental Science & Policy
2018 – 2019	Osen Pongen, Geography, Environmental Science & Policy
2017 – present	Nigel Joseph, Geography, Environmental Science & Policy

**Louisiana State University**

2024	Cehong Luo, Geography
2022	Shaun Williams, Geography
2021	Ya Han, Geography

**CHAired MASTER’S COMMITTEES**

**University of Florida**

2024	Jinpeng Wang, “Visualizing complex mobility patterns using backbone networks.” Now a PhD student at the University of Florida.
2023	Cade Gouin, “Spatio-temporal dynamics of crime amidst the COVID-19 pandemic.” Now Chief Operating Officer at Zenscape Marketing.

**University of South Florida**

2019	Bailey Glover, “Measuring and understanding food accessibility in the Tampa Bay Area.” Now GIS/BI Supervisor for Licenses & Inspections at the City of Philadelphia.
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**MEMBERSHIP ON MASTER’S COMMITTEES**

**University of Florida**

2020	John Newman, Geography
2022 – present	Juan Villa, Geography

**University of South Florida**

2020	Katie Wagner, Environmental Science & Policy
2019	Mathew Bauld, Geography
2019	Christianne Pearce, Environmental Science & Policy
2019	Courtney Buck, Environmental Science & Policy

**UNDERGRADUATE HONORS THESIS**

**University of Florida**

2023 Finn Rimay, Microbiology and Cell Science

**COURSES TAUGHT**

**University of Florida**

2019 – present GIS4113/6104 Spatial Networks  
 2020 – present GEO3602 Urban/Business Geography  
 2020 – present GEO4700/6706 Transportation Geography

<b>University of Florida</b>				
<b>Term</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Evaluation Score</b>
Spr24	GEO3602	Urban/Business Geography	3	4.72
Fall23	GEO4700	Transportation Geography	3	4.75
Fall23	GEO6706	Transportation Geography	3	5.00
Fall23	GIS4113	Spatial Networks	3	4.90
Fall23	GIS6104	Spatial Networks	3	4.11
Spr23	GEO3602	Urban/Business Geography	3	4.72
Fall22	GEO4700	Transportation Geography	3	4.81
Fall22	GEO6706	Transportation Geography	3	4.67
Fall22	GIS4113	Spatial Networks	3	4.88
Fall22	GIS6104	Spatial Networks	3	4.00
Spr22	GEO3602	Urban/Business Geography	3	4.65
Fall21	GIS4113	Spatial Networks	3	4.71
Fall21	GIS6104	Spatial Networks	3	4.30
Spr21	GEO3602	Urban/Business Geography	3	4.70
Fall20	GEO4938	Transportation Geography	3	4.79
Fall20	GEO6938	Transportation Geography	3	5.00
Fall20	GIS4113	Spatial Networks	3	4.82
Fall20	GIS6104	Spatial Networks	3	4.75
Spr20	GEO3602	Urban/Business Geography	3	4.83
Fall19	GIS4113	Spatial Networks	3	4.96
Fall19	GIS6104	Spatial Networks	3	4.94

**University of South Florida**

2017 – 2019 GIS4043 Geographic Information Systems  
 2018 GIS6307 GIS Seminar: Socioeconomic Applications of GIS

<b>University of South Florida</b>				
<b>Term</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Evaluation Score</b>
Spr19	GIS4043 (003)	Geographic Information Systems	3	4.85
Spr19	GIS4043 (002)	Geographic Information Systems	3	4.29
Fall18	GIS6307	GIS Seminar	3	4.81
Fall18	GIS4043 (002)	Geographic Information Systems	3	4.60
Fall18	GIS4043 (001)	Geographic Information Systems	3	4.50
Spr18	GIS4043 (002)	Geographic Information Systems	3	4.60
Fall17	GIS4043 (003)	Geographic Information Systems	3	4.69

**GUEST INSTRUCTION**

**University of Florida**

2021 – 2024            GEO3502 Economic Geography (Fall21; Fall22; Spr23; Fall23; Fall24)

**University of South Florida**

2019                    TTE4005 Transportation Engineering II (Spr19)

**Louisiana State University**

2015                    GEOG7945 Socio-Economic Applications of GIS (Fall15)

**SERVICE ACTIVITIES**

**SCIENTIFIC PEER REVIEWS**

**Scientific Journals**

- |   |   |
|---|---|
| Acta Polytechnica                                 | Environment and Planning B: Urban Analytics and City Science      |
| Acta Tropica                                      | Environmental Monitoring and Assessment                           |
| Annals of the American Association of Geographers | Frontiers of Earth Science  |
| Annals of GIS                                     | Geographical Analysis   |
| Annals of Tourism Research                        | GeoJournal  |
| Applied Geography                                 | Geographical Research   |
| Applied Spatial Analysis and Policy               | Growth and Change: A Journal of Urban and Regional Policy         |
| BMJ Global Health                                 | Humanities and Social Sciences Communications                     |
| Children and Youth Services Review                | International Journal of Environmental Research and Public Health |
| Cities  | International Journal of Hospitality Management                   |
| Computer Applications in Engineering Education    | International Journal of Sustainable Transportation               |
| Computers, Environment and Urban Systems          |   |
| Data-Enabled Discovery and Applications           |   |

International Regional Science Review	Singapore Journal of Tropical Geography
Journal of Environmental Management	Smart Cities
Journal of Geography in Higher Education	Socio-Economic Planning Sciences
Journal of Infrastructure Systems	Southeastern Geographer
Journal of Maps	Sustainable Cities and Society
Journal of Planning Education and Research	Sustainability Science
Journal of Quantitative Criminology	The Professional Geographer
Journal of Regional Science	Transactions in GIS
Journal of Transport Geography	Transportation
Landscape and Urban Planning	Transportation Planning and Technology
Nature Cities	Transportation Research Board Annual Meeting
Papers in Applied Geography	Transportation Research Part D: Transport and Environment
Physica A: Statistical Mechanics and its Applications	Transportation Research Part F: Traffic Psychology and Behaviour
PLOS ONE	Transportation Research Record
Preventing Chronic Disease	Travel Behaviour and Society
Progress in Disaster Science	Urban Geography
Reliability Engineering & System Safety	地理科学 (Scientia Geographica Sinica)
Research in Transportation Business & Management	地理研究 (Geographical Research)
Scientific Reports	资源科学 (Resources Science)

### **Conference Program Committee**

- Complex Networks 2025
- Complex Networks 2024
- Complex Networks 2023
- The Joint CaGIS and UCGIS Symposium 2024

### **Grants Panel Reviews**

2025 – 2026      Human-Environment and Geographical Sciences Program (HEGS), National Science Foundation (NSF)

### **Grants & Awards**

- Borders, Trade, and Immigration (BTI) Institute
- National Institute for Congestion Reduction (NICR)
- National Science Foundation (NSF)
- Oak Ridge Associated Universities (ORAU) Ralph E. Powe Junior Faculty Award
- Research Grants Council (RGC) of Hong Kong

- The John Odland Competition of AAG Spatial Analysis & Modeling (SAM) Specialty Group
- University of Florida Informatics Institute (UFII) COVID-19 SEED Fund Program

**Book Publishers**

- Chapman & Hall/CRC
- CRC Press
- Routledge Press

**JOURNAL BOARDS AND EDITORSHIPS**

2023 – present	Computers, Environment and Urban Systems
2023 – present	Scientific Reports
2022 – present	Humanities & Social Sciences Communications
2020 – present	Southeastern Geographer
2024	Guest Editor of special issue “Sustainable transportation and mobility solutions” in Scientific Reports
2019	Guest Editor of special issue “Accessibility and Transportation Equity” in Sustainability

**COMMITTEES**

**International/National**

2025 – present	Standing Review Board, Research Grants Council (RGC), University Grants Committee, Hong Kong
2020 – 2023	Committee Member, T&DI (Transportation & Development Institute) Technical Committee on Artificial Intelligence, American Society of Civil Engineers
2018 – 2022	Board Member, Transportation Geography Specialty Group, American Association of Geographers
2020 – 2021	Newsletter Editorial Committee, International Association of Chinese Professionals in Geographic Information Sciences
2019	External Reviewer, Earth Sciences’ Major Field Test, University of Memphis

**University**

2020 – 2023	Faculty mentor of the University Multicultural Mentor Program (UMMP), University of Florida
2022 – 2023	Faculty advisor of Computer Science majors on senior design project, University of Florida
2020	Affiliate Faculty, contributed to the creation of the strategic plan for the UF Transportation Institute new initiative on Sustainability and Resilience
2020	Affiliate Faculty, contributed to the creation of the strategic plan for the UF Transportation Institute new initiative on Safety

**College**

2023 – present AI/Data Science Research Cluster Committee, College of Liberal Arts and Sciences,  
University of Florida

**Department**University of Florida

2025 – present Chair, Graduate Committee  
 2025 – present Department Governance Committee  
 2024 – 2025 Graduate Committee  
 2023 – 2024 Co-chair, Undergraduate Committee  
 2023 Faculty Marshal  
 2023 Colloquium Committee  
 2021 – present AI & Program Development Committee  
 2021 – present Social Media Committee  
 2019 – 2023 Graduate Admissions Committee  
 2022 Grad Recruitment Weekend Committee  
 2021 Social Media Co-coordinator  
 2021 Assistant Professor of Medical Geography in Global Health Search Committee  
 2021 Assistant Professor of Atmospheric and Climate Science Search Committee  
 2019 – 2020 Development Geospatial Sciences Discussion Ad-hoc Committee  
 2019 – 2020 Awards Committee  
 2019 Faculty Representative at the Undergraduate Research Expo

University of South Florida

2018 – 2019 GIScience Ad-hoc Committee  
 2017 – 2019 Graduate Admissions Committee  
 2017 – 2018 Assistant Professor of GIScience Search Committee