

# Xiang ‘Jacob’ Yan

## EDUCATION

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**University of Michigan**, Ann Arbor, Michigan

· Ph.D. in Urban and Regional Planning (Transportation Technology & Geospatial Analytics) 2019

· Master’s in Urban Planning (Housing, Community, and Economic Development) 2015

**University of Florida**, Gainesville, Florida

· M.S. in Civil Engineering (Transportation Engineering) 2021

**Nanjing University**, Nanjing, China

· B.E. in Urban Planning (Economic Geography) 2013

## EMPLOYMENT

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**Assistant Professor**, Civil & Coastal Engineering, University of Florida 2022 -

**Research Assistant Professor**, Civil & Coastal Engineering, University of Florida 2021 - 2022

**Postdoctoral Associate**, Urban and Regional Planning, University of Florida 2019 - 2020

**Graduate Student Research Assistant**, Urban & Regional Planning, Univ. of Michigan 2015 - 2019

**GIS Analyst**, School for Environment & Sustainability, University of Michigan 2014 - 2015

**Data Analyst**, Department of Institutional Research, Washtenaw Community College 2014

**Instructor**, Nanjing New Oriental School, China 2012 - 2013

## AWARDS, HONORS, AND FELLOWSHIPS

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Equity Paper Award, *Transportation Research Board Bicycle Transportation Committee (ACH20)* 2024

Outstanding Reviewer 2022, *Transportation Research Part D: Transport and Environment* 2023

Best Dissertation Award, *World Society for Transport and Land Use Research* 2021

2020 Outstanding Paper Award, *Travel Behaviour and Society* 2021

Distinguished Dissertation Award in Urban and Regional Planning, *University of Michigan* 2020

Rackham One-Term Dissertation Fellowship, *University of Michigan* 2019

AICP Student Project Award, *American Planning Association* 2018

Honorable Mention, Karen Polenske Best Student Paper Award, *Intl. Assoc. for China Planning* 2018

ICR-Rackham Summer Training Award (\$2500), *University of Michigan* 2016

Engaged Pedagogy Initiative Fellow, *University of Michigan* 2014

Meng Minwei Exchange Student Scholarship (25,000 RMB), *Shun Hing Group Foundation* 2011

## PUBLICATIONS

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### Peer-reviewed Journal Articles

(Note: Student co-authors are underlined.)

[29] Fang, J., **Yan, X.**, Tao, T., Chen, C. (2024). Non-linear Effects of Built Environment Factors on Mode Choice: A Tour-Based Analysis. *Journal of Transport and Land Use*. <https://doi.org/10.5198/jtlu.2024.2403>

- [28] Yin, Z., Rybarczyk, G., Zheng, A., Su, L., Sun, B. **Yan, X.** (2024). Shared micromobility as a first- and last-mile transit solution? Spatiotemporal insights from a novel dataset. *Journal of Transport Geography*. <https://doi.org/10.1016/j.jtrangeo.2023.103778>
- [27] Forrister, A., Kuligowski, E., Sun, Y., **Yan, X.**, Lovreglio, R., Cova, T., Zhao, X. (2024). Analyzing Risk Perception, Evacuation Decision and Delay Time: A Case Study of the 2021 Marshall Fire in Colorado. *Travel Behaviour and Society*, 35, 100729. <https://doi.org/10.1016/j.tbs.2023.100729>
- [26] Su, L., **Yan, X.**, Zhao, X. (2024). Micromobility equity: A comparison of shared e-scooters and station-based bikeshare in Washington DC. *Transport Policy*, 145, 25-36. <https://doi.org/10.1016/j.tranpol.2023.10.008>
- [25] Huang, E., Yin, Z., Broaddus, A., **Yan, X.** (2024). Transit and shared e-scooter integration: Travel behavior insights from Los Angeles and Washington D.C.. *Travel Behavior and Society*, 34, 100663. <https://doi.org/10.1016/j.tbs.2023.100663>
- [24] **Yan, X.**, Zhao, X., Broaddus, A., Johnson, J., Srinivasan, S. (2023). Evaluating shared e-scooters' potential to enhance public transit and reduce driving. *Transportation Research Part D: Transport and Environment*, 117, 103640. <https://doi.org/10.1016/j.trd.2023.103640>
- [23] Yang, W., Jafarzadehfadaki, M., **Yan, X.**, Zhao, X., Jin, X., Frolinch, D., Sisiopiku, V. (2023). Shared E-scooters: User Characteristics and Usage Patterns across Four U.S. Cities. *Transportation Research Record*, 03611981231194626. <https://doi.org/10.1177/03611981231194626>
- [22] Fang, J., **Yan, X.**, Bejleri, I., Chen, C. (2022). Which trip destination matters? Estimating the influence of the built environment on mode choice for home-based complex tours. *Journal of Transport Geography*, 105, 103474. <https://doi.org/10.1016/j.jtrangeo.2022.103474>
- [21] Wu, A., Kuligowski, E., Lovreglio, R., Nilsson, D., Cova, T., Xu, Y., **Yan, X.**, & Zhao, X. (2022). Wildfire evacuation decision modeling using GPS data. *International Journal of Disaster Risk Reduction*, 83, 103373. <https://doi.org/10.1016/j.ijdrr.2022.103373>
- [20] Xu, Y., Zhao, X., Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T., & **Yan, X.** (2022). A highway vehicle routing dataset during the 2019 Kincade Fire evacuation. *Scientific Data*. <https://doi.org/10.1038/s41597-022-01731-6>
- [19] Zhao, X., Xu, Y., Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T., Wu, A., **Yan, X.** (2022). Estimating wildfire evacuation decision and departure timing using large-scale GPS data. *Transportation Research Part D: Transport and Environment*, 107, 103277. <https://doi.org/10.1016/j.trd.2022.103277>
- [18] Xu, Y., **Yan, X.**, Sisiopiku, V., Merlin, L., Xing, F., Zhao, X. (2022). Micromobility trip origin and destination inference using General Bikeshare Feed Specification (GBFS) data. *Transportation Research Record: Journal of the Transportation Research Board*, 2676 (11), 223-238. <https://doi.org/10.1177/03611981221092005>
- [17] **Yan, X.**, Bejleri, I., Zhai, L. (2022). A spatiotemporal analysis of transit accessibility to low-wage jobs in Miami-Dade County. *Journal of Transport Geography*, 98, 103218. <https://doi.org/10.1016/j.jtrangeo.2021.103218>
- [16] **Yan, X.**, Yang, W., Zhang, X., Xu, Y., Bejleri, I., Zhao, X. (2021). A spatiotemporal analysis of e-scooters' relationships with transit and station-based bikesharing. *Transportation Research Part D: Transport and Environment*, 12, 103088. <https://doi.org/10.1016/j.trd.2021.103088>

- [15] Wang, X., **Yan, X.**, Zhao, X., Cao, Z. (2022). Identifying latent shared mobility preference segments in low-resourced communities: Ridehailing, fixed-route bus, and mobility-on-demand transit. *Travel Behaviour and Society*, 26, 134-163. <https://doi.org/10.1016/j.tbs.2021.09.011>
- [14] Chen, S., **Yan, X.**, Pan, H., Deal, B. (2021). Using big data for last-mile performance evaluation: An accessibility-based approach. *Travel Behaviour and Society*, 25, 153-163. <https://doi.org/10.1016/j.tbs.2021.06.003>
- [13] Steiner, R., Bejleri, I., Bai, X., Han, M., **Yan, X.** (2021). Partnerships between agencies and transportation network companies for transportation-disadvantaged populations: Opportunities and challenges. *Transportation Research Record: Journal of the Transportation Research Board*, 2675 (12), 1260-1271. <https://doi.org/10.1177/03611981211032629>
- [12] **Yan, X.**, Zhao, X., Han, Y., Van Hentenryck, P., Dillahun, T. (2021). Mobility-on-demand versus fixed-route transit systems: An evaluation of traveler preferences in low-income communities. *Transportation Research Part A: Policy and Practice*, 148, 481-495. <https://doi.org/10.1016/j.tra.2021.03.019>
- [11] **Yan, X.** (2021). Toward accessibility-based planning: Addressing the myth of travel-cost savings. *Journal of the American Planning Association*, 87 (3), 409-423. <https://doi.org/10.1080/01944363.2020.1850321>
- [10] Merlin, L., **Yan, X.**, Xu, Y., Zhao, X. (2021). A segment-level model of shared scooter origins and destinations. *Transportation Research Part D: Transport and Environment*, 92, 102709. <https://doi.org/10.1016/j.trd.2021.102709>
- [9] Xu, Y., **Yan, X.**, Liu, X., Zhao, X. (2021). Identifying key factors associated with ride-splitting rate and modeling their nonlinear relationships. *Transportation Research Part A: Policy and Practice*, 144, 170-188. <https://doi.org/10.1016/j.tra.2020.12.005>
- [8] Deng, L., **Yan, X.**, Chen, J. (2021). Housing affordability, subsidized lending and cross-city variation in the performance of China's housing provident fund program. *Housing Studies*, 36(4), 455-478. <https://doi.org/10.1080/02673037.2019.1585521>
- [7] Zhao, X., **Yan, X.**, Yu, A., Van Hentenryck, P. (2020). Prediction and behavioral analysis of travel mode choice: A comparison of logit models and machine learning. *Travel Behavior and Society*, 20, 22-35. <https://doi.org/10.1016/j.tbs.2020.02.003> (**Won the 2020 Outstanding Paper Award**)
- [6] **Yan, X.**, Liu, X., Zhao, X. (2020). Using machine learning for direct demand modeling of ridesourcing services in Chicago. *Journal of Transport Geography*, 83, 102661. <https://doi.org/10.1016/j.jtrangeo.2020.102661>
- [5] **Yan, X.** (2020). Evaluating household residential preferences for walkability and accessibility across three U.S. regions. *Transportation Research Part D: Transport and Environment*, 80, 102255. <https://doi.org/10.1016/j.trd.2020.102255>
- [4] **Yan, X.**, Levine, J., Marans, R. (2019). The effectiveness of parking policies to reduce parking demand pressure and car use. *Transport Policy*, 73, 41-50. <https://doi.org/10.1016/j.tranpol.2018.10.009>
- [3] **Yan, X.**, Levine, J., Zhao, X. (2019). Integrating ridesourcing services with public transit: An evaluation of traveler responses combining revealed and stated preference data. *Transportation Research Part C: Emerging Technologies*, 105, 683-696. <https://doi.org/10.1016/j.trc.2018.07.029>
- [2] Goodspeed, R., **Yan, X.**, Hardy, J., Vydiswaran, V.G.V., Berrocal, V.J., Clarke, P., R., Gomez-Lopez, I.N., Romero, D., Veinot, T.C. (2018). Comparing the data quality of GPS devices and smartphones for

assessing relationships between place, mobility, and health: A field study. *Journal of Medical Internet Research mHealth and uHealth*, 6 (8), e168. <https://doi.org/10.2196/mhealth.9771>

[1] Hardy, J., Veinot, T. C., **Yan, X.**, Berrocal, V. J., Clarke, P., Goodspeed, R., Gomez-Lopez, I.N., Romero, D., Vydiswaran, V. G. V. (2018). User acceptance of location-tracking technologies in health research: implications for study design and data quality. *Journal of Biomedical Informatics*, 79, 7-19. <https://doi.org/10.1016/j.jbi.2018.01.003>

## **Work in Progress**

Lyu, D., Liu, L., Campbell, C. Zhang, Y., **Yan, X.** Potentials and Limitations of Large-scale Mobile Device Location Data for Food Access Analysis. *Revised and Resubmitted*.

Dai, Y., Liu, L., Wang, K., L., M., **Yan, X.** Using Deep Learning and Google Street View Images to Assess Bus Stop Amenities. *Submitted*.

Duarte E., Lyu, D., Zheng, A., Merlin, L., Renne, J., Hoermann, S., **Yan, X.** Developing and validating a multi-criteria approach for locating multimodal mobility hubs. *Submitted*.

Lyu, D., **Yan, X.** The Impact of Transit Service Frequency and On-time Performance on Ridership: An Analysis of the Pre-Covid and Recovery Periods in Miami-Dade County. *Submitted*.

Chae, K., Kim, S., **Yan, X.** Exploring attitudinal group differences in preferences for shared e-scooter use and its integration with public transit. *Submitted*.

Liu, L., Li, X., **Yan, X.**, Pereira, R. Measuring Exposure to Extreme Heat in Public Transit Systems. *Submitted*.

Salehian M., Zorbas, V., Manjunatha, P., **Yan, X.**, Elefteriadou, L., Gladwin, K. Are Autonomous Shuttles Ready to Provide Regular Transit Service? *Submitted*.

Xu, X., **Yan, X.**, Fang, J., Bejleri, I. Neighborhood income and pedestrian and bicyclist safety in Florida. *Submitted*.

Qian, Y., Lyu, D., Zhang, W., **Yan, X.** Understanding E-Scooter Route Choice Behavior in Washington DC: A Path Size Logit Model. *In process*.

Qian. Y., Liu, L., **Yan, X.** Big data, big bias? On Factors Influencing Public Transit and Shared Micromobility Integration. *In process*.

Qian, Y., Polimetla, T., Sanchez, T., **Yan, X.** (2024). How do transportation professionals perceive the impacts of AI applications in transportation? A latent class cluster analysis. *Submitted*.

## **Peer-reviewed Book Chapters**

[1] Goodspeed, R., **Yan, X.** (2017). Crowdsourcing street beauty: Visual preference surveys in the big data era. in Schintler, L.A. and Chen, Z. (Eds.), *Big Data for Regional Science (Routledge Advances in Regional Economics, Science and Policy)* (pp.75-93). London and New York: Routledge.

## **Peer-reviewed Conference Proceedings**

[24] Xu, X., **Yan, X.**, Fang, J., Bejleri, I. (2024). Examining Bicyclist Safety Inequity Across Neighborhoods in Florida. *The Transportation Research Board 2024 Annual Meeting*.

- [23] Yin, Z., Rybarczyk, G., Zheng, A., Su, L., Sun, B., **Yan, X.** (2024). Shared micromobility as a first-and last-mile transit solution? Insights from a novel dataset. *The Transportation Research Board 2024 Annual Meeting*.
- [22] Duarte, E., Zheng, A., Merlin, L., Renne, J., **Yan, X.** (2024). Planning for multimodal mobility hubs in the new mobility era: state of practice, research trends, and knowledge gaps. *The Transportation Research Board 2024 Annual Meeting*.
- [21] Zhang, X., Zhao, X., **Yan, X.** (2024). Are mobile device location data biased for human mobility analysis? *The Transportation Research Board 2024 Annual Meeting*.
- [20] Qian, Y., Polimetla, T., Sanchez, T., **Yan, X.** (2024). How do transportation professionals perceive the impacts of AI applications in transportation? A latent class cluster analysis. *The Transportation Research Board 2024 Annual Meeting*.
- [19] Zheng, A., **Yan, X.** (2023). The location problem of EV charging stations: research trends, critical gaps, and a future agenda. *The Transportation Research Board 2023 Annual Meeting*.
- [18] Huang, E., Yin, Z., Broaddus, A., **Yan, X.** (2023). Transit and shared e-scooter integration: Travel behavior insights from Los Angeles and Washington D.C.. *The Transportation Research Board 2023 Annual Meeting*.
- [17] Su, L., Zhang, X., **Yan, X.**, Zhao, X. (2023). Exploring nonlinear relationships and preference heterogeneity in mode-switching behavior under a mobility-on-demand transit system. *The Transportation Research Board 2023 Annual Meeting*.
- [16] Yang, W., Jafarzadehfadaki, M., **Yan, X.**, Zhao, X., Jin, X., Frolinch, D., Sisiopiku, V. (2023). Shared E-scooters: User Characteristics and Usage Patterns across Four U.S. Cities. *The Transportation Research Board 2023 Annual Meeting*.
- [15] Su, L., **Yan, X.**, Zhao, X. (2022). Micromobility equity: A comparison of shared e-scooters and station-based bikeshare in Washington DC. *The Transportation Research Board 2022 Annual Meeting*.
- [14] Zhao, X., Xu, Y., Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T., Wu, A., **Yan, X.** (2022). Estimating Wildfire Evacuation Decision and Departure Timing Using Massive GPS Data. *The Transportation Research Board 2022 Annual Meeting*.
- [13] **Yan, X.**, Zhao, X., Broaddus, A., Johnson, J., Srinivasan, S. (2022). Exploring the potential of shared e-scooters as a last-mile complement to public transit. *The Transportation Research Board 2022 Annual Meeting*.
- [12] **Yan, X.**, Bejleri, I., Zhai, L. (2022). A spatiotemporal analysis of transit accessibility to low-wage jobs in Miami-Dade County. *The Transportation Research Board 2022 Annual Meeting*.
- [11] **Yan, X.**, Yang, W., Zhao, X. (2022). Do e-scooters complement or compete with public transit and station-based bikesharing? A case study of Washington DC. *The Transportation Research Board 2022 Annual Meeting*.
- [10] Zhang, X., Zhou, Z., **Yan, X.**, Zhao, X. (2022). Examining Spatial Heterogeneity in the Determinants of Ridesourcing Trips with Explainable Machine Learning. *The Transportation Research Board 2022 Annual Meeting*.
- [9] Fang, J., **Yan, X.**, Bejleri, I. (2022). Which Trip Destination Matters? Estimating the Influence of Land Use on Mode Choice for Home-Based Complex Tours. *The Transportation Research Board 2022 Annual Meeting*.

- [8] Wang, X., **Yan, X.**, Zhao, X., & Cao, Z. (2021). Identifying latent shared mobility preference segments in low-resourced communities: Ride-hailing, fixed-route bus, and mobility-on-demand transit. *The Transportation Research Board 2021 Annual Meeting*.
- [7] Steiner, R., Bejleri, I., Bai, X., Han, M., **Yan, X.** (2021). Partnerships between Agencies and Transportation Network Companies for Transportation-Disadvantaged Populations: Benefits, Problems, and Challenges. *The Transportation Research Board 2021 Annual Meeting*.
- [6] Zhao, X., Wang, X., **Yan, X.**, & Cao, Z. (2021). Assessing preference heterogeneity for Mobility-on-Demand transit service in low-income communities: A latent segmentation based decision tree method. *The Transportation Research Board 2021 Annual Meeting*.
- [5] Xu, Y., **Yan, X.**, Sisiopiku, V. P., Merlin, L. A., Xing, F., & Zhao, X. (2021). Micromobility trip origin and destination inference using General Bikeshare Feed Specification (GBFS) data. *The Transportation Research Board 2021 Annual Meeting*.
- [4] Zhao, X., Zhou, Z., **Yan, X.**, & Van Hentenryck, P. (2020). Distilling black-box travel mode choice model for behavioral interpretation. *The Transportation Research Board 2020 Annual Meeting*.
- [3] Zhao, X., Liu, X., & **Yan, X.** (2020). Modeling demand for ridesourcing services in the City of Chicago: A direct demand machine learning approach. *The Transportation Research Board 2020 Annual Meeting*.
- [2] Xu, X., **Yan, X.**, and Dillahunt, T. (2019). Reaching hard-to-reach populations: an analysis of survey recruitment methods. *In Conference Companion Publication of the 2019 Conference on Computer Supported Cooperative Work and Social Computing* (pp. 428-432). <https://doi.org/10.1145/3311957.3359447>
- [1] **Yan, X.**, Levine, J., Marans, R. (2019). The effectiveness of parking policies to reduce parking demand pressure and car use. *Proceedings of Transportation Research Board 98th Annual Meeting*.

## **Reports and Other Publications**

- [10] **Yan, X.**, Garces, S., Huang, S., Sowell, K., Campbell, C., Jiang, S., Duarte, E., Zhao, X. (2024). Transportation as a Social Determinant of Health During Hurricane Idalia. *Natural Hazards Center Quick Response Grant Report Series*, 349. Boulder, CO: Natural Hazards Center, University of Colorado Boulder.
- [9] **Yan, X.**, Hunter, M., Polimetla, T., Robinson, K., Patel, A., Kuang, D., Zhao, X., Sanchez, T. (2023). Promoting equitable AI applications in transportation (No. STRIDE Project P6). <https://stride.ce.ufl.edu/wp-content/uploads/sites/153/2024/01/STRIDE-Final-Report-P6-Yan.pdf>
- [8] Zhao, X., **Yan, X.**, Sisiopiku, V., Kaza, N., Kittner, N., McDonald, N., Jin, ... & Shroyer, N. (2023). Mobility-on-Demand Transit for Smart and Sustainable Cities (No. STRIDE Project D4). <https://rosap.ntl.bts.gov/view/dot/72843>
- [7] Forrister, A., **Yan, X.**, Yin, Z., Zhao, X., Cova, T., Lovreglio, R., Nilsson, D., & Kuligowski, E. (2022). Survey of Evacuation Behavior in the 2021 Marshall Fire, Colorado. *Natural Hazards Center Quick Response Grant Report Series*, 349. Boulder, CO: Natural Hazards Center, University of Colorado Boulder. <https://hazards.colorado.edu/quick-response-report/survey-of-evacuation-behavior-in-the-2021-marshall-fire-colorado>
- [6] Zhao, X., Sisiopiku, V., Steiner, R., Xu, Y., Liu, Y., **Yan, D.**, ... & Suarez, J. (2022). Micromobility as a Solution to Reduce Urban Traffic Congestion (No. STRIDE Project B3). [https://rosap.ntl.bts.gov/view/dot/63270/dot.63270\\_DS1.pdf](https://rosap.ntl.bts.gov/view/dot/63270/dot.63270_DS1.pdf)

- [5] Bejleri I., Zhang, Y., Zhai, L., and **Yan, X.** (2020). Timely, dynamic, and spatially accurate roadway incident information to support real-time management of traffic operations. *Florida Department of Transportation*, Report No. BDV31-977-111.
- [4] Dillahun, T., **Yan, X.** (2019). Mobility-on-demand versus fixed-route transit systems: An evaluation of traveler preferences in low-income communities. Poverty Solutions, University of Michigan. Policy Brief, March 2019.
- [3] **Yan, X.** (2014). The mortgage interest deduction: The debate and possible reforms. *Agora: The Urban Planning and Design Journal of the University of Michigan*, 8, 84-93.
- [2] Yu T., **Yan, X.** (2011). Creating a dynamic urban planning assessment system: to solve the problem of authoritarian plans. *Modern Urban Research* (In Chinese), 12, 22-27.
- [1] **Yan, X.**, Yu, T., Wang, X. (2011). Headquarters economy in the context of globalization: A review. *Modern Urban Research* (In Chinese), 9, 91-96.

## RESEARCH FUNDING

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<i>Collaborative Research SAI: Safe bicycle infrastructure: Preparing for an e-bike future</i>	
· Funding source: National Science Foundation	2024-2027
· My role: PI	
<i>Assessing and Mitigating Spatial Bias of Large-Scale Mobile Location Data for Human Mobility Analysis</i>	
· Funding source: National Science Foundation	2024-2027
· My role: co-PI	
<i>Central Florida Passenger Rail Preliminary Evaluation</i>	
· Funder: Florida Department of Transportation	2024 - 2025
· My role: PI	
<i>Strategies to Improve Application of Research Results in the Research Life Cycle</i>	
· Funder: The National Cooperative Highway Research Program (NCHRP)	2024 - 2025
· My role: UF Co-PI	
<i>A synthesis study of electric vehicles' costs, economic impacts, and infrastructure implications</i>	
· Funder: Florida Department of Transportation	2024
· My role: Co-PI	
<i>Transportation as a Social Determinant of Health During Hurricane Idalia</i>	
· Funder: Natural Hazards Center	2023 - 2024
· My role: PI	
<i>Center for Equitable Transit-Oriented Communities, Tier-1 University Transportation Center</i>	
· Funder: U.S. Department of Transportation	2023 - 2028
· My role: UF Co-PI	
<i>Scan and Review of Autonomous Shuttle Operations and Other Personal Transport</i>	
· Funder: Florida Department of Transportation	2023 - 2024
· My role: Co-PI	
<i>Leveraging Mobility Data Analytics to Inform Mobility Hub Development in Florida</i>	
· Funder: Florida Department of Transportation	2023 - 2024
· My role: PI	

<i>Federal Transit Administration (FTA) Research to Practice Initiative Grant</i>	
· Funder: Federal Transit Administration	2023 - 2024
· My role: UF PI	
<i>Survey of Evacuation Behavior in the 2021 Boulder County, CO Grass Fires</i>	
· Funding source: Natural Hazards Center	2022
· My role: PI	
<i>Promoting Equitable AI in Transportation</i>	
· Funder: USDOT Region 4 STRIDE UTC center	2022 - 2023
· My role: PI	
<i>Investigating Shared E-scooters as a First/Last Mile Connection to Transit</i>	
· Funder: Ford Motor Company	2021 - 2022
· My role: Co-PI	
<i>Mobility-on-Demand Transit for Smart and Sustainable cities</i>	
· Funder: USDOT Region 4 STRIDE UTC center	2020 - 2021
· My role: Co-PI	
<i>Mobilizing Accessibility in Detroit and Ypsilanti</i>	
· Funder: Poverty Solutions University of Michigan	2018 - 2019
· My role: Co-PI	

## SELECTED CONFERENCE PRESENTATIONS

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“Shared micromobility as a last-mile transit solution? Spatiotemporal insights from a novel dataset.” *The Inagural U.S. Department of Transportation Future of Transportation Summit*, Washington DC, August 13-15, 2024.

“Measuring Extreme Heat Exposure in Public Transit Systems in Florida, US.” *The 2024 Gulf of Mexico Conference*, Tampa, FL, February 19-22, 2024.

“An analytical framework for bus fleet electrification and e-bus charging station planning: A case study of Gainesville Regional Transit System.” *Annual Conference of the American Association of Geographers (AAG)*, Denver, CO, March 23-27, 2023.

“E-scooters as a last-mile feeder mode to public transit: how, where, and when.” *The 16th International Association for China Planning (IACP) Annual Conference*, virtually from Wuhan, China, June 23-27, 2022.

“Micromobility equity: A comparison of shared e-scooters and station-based bikeshare in Washington DC.” *7th UTC Conference for the Southeastern Region*, Boca Raton, Florida, March 24-25, 2022.

“Exploring the potential of shared e-scooters as a last-mile complement to public transit.” *7th UTC Conference for the Southeastern Region*, Boca Raton, Florida, March 24-25, 2022.

“Do e-scooters fill mobility gaps and promote equity? A spatiotemporal analysis using open big data.” *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, October 7-8 & 21-23, 2021.

“Do e-scooters fill mobility gaps and promote equity before and during COVID-19? A spatiotemporal analysis using open big data.” *The 15th International Association for China Planning (IACP) Annual Conference*, virtually from Nanjing, China, September 11-12, 2021.



“Do e-scooters fill mobility gaps before and during COVID-19? A spatiotemporal analysis using open big data.” *2021 World Symposium on Transport and Land Use Research (WSTLUR)*, virtually from Portland, Oregon, August 9-11, 2021.

“Evaluating household residential preferences for walkability and accessibility across three U.S. regions.” *The 14th International Association for China Planning (IACP) Annual Conference*, virtually from Shenzhen, China, December 5-13, 2020.

“Using machine learning for direct demand modeling of ridesourcing services in Chicago.” *The Transportation Research Board (TRB) 99th Annual Meeting*, Washington DC, January 12-16, 2020

“Mobility-on-demand versus fixed-route transit systems: An evaluation of traveler preferences in low-income communities.” *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, Greenville, SC, October 24-27, 2019.

“The value of accessibility in residential location choice.” *The 13th International Association for China Planning (IACP) Annual Conference*, Chengdu, China, June 14-15, 2019.

“The effectiveness of parking policies to reduce parking demand pressure and car use.” *The Transportation Research Board (TRB) 98th Annual Meeting*, Washington DC, January 13-17, 2019.

“The value of accessibility in residential location choice.” *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, Buffalo, NY, October 24-28, 2018.

“Integrating ridesourcing services with public transit: An evaluation of traveler responses combining revealed and stated preference data.” *The 12th International Association for China Planning (IACP) Annual Conference*, Xi’an, China, June 29-30, 2018.

“Efficiency and equity issues in the use of Chinese Housing Provident Fund: Evidence from seven major cities.” *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, Denver, CO, October 11-15, 2017.

“Rethinking agglomeration economies, accessibility, and productivity: the importance of urban form.” *Annual Conference of the American Association of Geographers (AAG)*, Boston, MA, April 5-9, 2017.

## INVITED TALKS, ROUNDTABLES, AND WORKSHOPS

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### Invited Talks

“Integrating Big and Small Data to Understand Transit and Micromobility Interactions and Promote Their Integration”, *Next-Gen Transportation Seminar Series*, Department of Civil, University of Michigan, January 18, 2024

“Leveraging Data Science and AI for Smart and Equitable Public Transportation Systems”, *Federal Transit Administration*, January 11, 2024

“Strategies for Promoting Shared Micromobility to Complement Public Transit”, *Zube Lecture series*, Department of Landscape Architecture and Regional Planning, University of Massachusetts, Amherst, September 28, 2023

“Equity in New Mobility Services: The Cases of Mobility-on-demand Transit and Shared Micromobility”, *The 25th Chinese Overseas Transportation Association Winter Symposium*, January 8, 2023.

“Toward Accessibility-based Planning”, *Occasional Transport Research Talks* hosted by Nick Klein (Cornell Univ.) & Kelcie Ralph (Rutgers Univ.), April 15, 2022.

“Leveraging Spatial Big Data and AI for Sustainable and Equitable Transportation.” *Department of Civil & Coastal Engineering, University of Florida*, March 15, 2022.

“Leveraging Spatial Data Science for Smart and Equitable Public Transportation.” *Department of Geography & Geoinformation Science, George Mason University*, February 11, 2022.

“Urban Planning in the Digital Era: Leveraging Data Science for Smart and Equitable Transportation.” *Department of Geography, Planning & Sustainability, Rowan University*, February 8, 2022.

“Urban Planning in the Digital Era: Leveraging Data Science for Smart and Equitable Transportation.” *Department of Community & Regional Planning, University of Nebraska-Lincoln*, February 3, 2022.

“Urban Planning in the Digital Era: Leveraging AI and Data Science for Smart and Equitable Transportation.” *College of Design, Construction and Planning, University of Florida*, January 31, 2022.

“Machine Learning in Travel Behavior Research.” *Transportation Research Board Standing Committee AMS50 Webinar Series*, November 12, 2021.

“Do e-scooters fill mobility gaps and promote equity before and during COVID-19? A spatiotemporal analysis using open big data.” *UF Biocomplexity Engineering Group Seminars*, October 19, 2021.

“Exploring the potential for public transit and share micromobility integration.” *Ford Motor Company Robotics and Mobility Research EMM/SAR Meeting Series*, September 30, 2021.

“The effectiveness of parking policies to reduce parking demand pressure and car use.” *511NY Rideshare Car Free Day Webinar*, September 14, 2021.

“Using big data and machine learning for transportation research.” *University of Florida Student Chapter for the Institute of Transportation Engineers*, March 4, 2021.

“The promises and pitfalls of machine learning and big data: Reflectively leveraging data science for transportation planning.” *Department of City and Regional Planning, University of North Carolina, Chapel Hill*, November 30, 2020.

“Ridesourcing as a solution to the last-mile travel problem: Evidence from stated preference data.” *Next Generation Transportation Systems Seminar*. University of Michigan, Ann Arbor, January 17, 2018.

## **Panels, Roundtables, and Workshops**

“Transit Agency-University Partnerships” (Moderated by Brendon Hemily, other panelists include John Levin and Keith Sirisack). *The 2024 Research-to-Practice Transit Symposium*, October 24, 2024.

“Applying AI Methods to Mobility” (Moderated by Renee Autumn Ray, other panelists include Nicole Dupuis, Robert Sheehan, Philip Pugliese). Workshop on *Accelerating Mobility Innovation: Overcoming Challenges and Re-envisioning Opportunities*. Transportation Research Board 2024 Meeting, January 7, 2024.

“Exploring Micromobility: Research on Safety, Equity, Transit Integration, and Testbeds,” pre-organized RiM session (Moderated by Wenwen Zhang, other panelists include Hannah Younes, Ralph Buehler, Janille Smith-Colin, and Greg Griffin). *Association of Collegiate Schools of Planning (ACSP) 2023 Chicago Annual Conference*, October 19-21, 2023.

“Micromobility” Panel Session (Moderated by Nikhil Kaza, other panelists include Mike Fortier, Barbara Godwin, and Will Sowers). *UNC Clean Tech Summit 2022*, Chapel Hill, North Carolina, March 30, 2022.

“Exploring nonlinear relationships with machine learning.” Roundtable (Moderated by Jason Cao, other panelists include Tao Tao and Sadegh Sabouri). *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, October 7-8 & 21-23, 2021.

“Exploring nonlinear relationships with machine learning.” Roundtable (Moderated by Jason Cao, other panelists include Tao Tao, Kailai Wang, and Wenjia Zhang). *The 15th International Association for China Planning (IACP) Annual Conference*, virtually from Nanjing, China, September 11-12, 2021.

“Extracting travel behavioral insights from black-box machine-learning models.” (jointly presented with Xilei Zhao) *Workshop on Machine Learning Methods to Calibrate Integrated Land Use and Transport Models*. Georgia Institute of Technology, Atlanta. June 13-14, 2019.

## TEACHING

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### Instructor

*CGN 4905/6905 Sustainable Transportation and Public Transit*, UF

· Enrollment: 16; Evaluations: 4.74/5 Fall 2023

*CGN 4905/6905 Applied Data Science in Civil & Environmental Engineering*, UF

· Enrollment: 4; Evaluations: 4.90/5 Fall 2023

· Enrollment: 5; Evaluations: 4.75/5 Fall 2022

· Enrollment: 12; Evaluations: 4.68/5 Fall 2021

### Guest Lecturer

*Smart Practicum Planning Studio*, University of Texas, Austin

September 19, 2023

· Presentation title: *Planning Smart Micromobility Systems Using Open Big Data*

*Highway Safety Analysis*, University of Florida

Nov 19, 2020

· Presentation title: *Spatial big data applications in travel safety research and practice*

*Transportation Data Analytics*, University of Florida

Oct 20, 2020

· Presentation title: *Spatial data analysis and mapping with R*

*Colloquium*, University of Florida

Sep 30, 2019

· Presentation title: *Designing and conducting a dissertation research project*

### Other Teaching Experience

**Graduate Student Instructor** for *Introduction to Statistics for Urban Planning*, UMich

Fall 2014

· Teaching Evaluations: 4.73/5

**Teacher** for *AP Statistics*, *GRE/GMAT Analytical Writing*, New Oriental School, China

2012 - 2013

· Average rating: 4.7/5.0

**Engaged Pedagogy Initiative Fellow**

Fall 2014

· LSA Community-Engaged Academic Learning, University of Michigan

## STUDENTS MENTORED AND SUPERVISED

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### **Doctoral Student Advisees**

- Duanya Lyu (PhD student in Civil Engineering, Fall 2023 -)
- Yiheng Qian (PhD student in Civil Engineering, Fall 2023 -) · Faizur Rahman Himel (PhD student in Civil Engineering, Fall 2024 -)

### **Master's Student Advisees**

- Jiawei You (Civil Engineering, Spring 2026')
- Varshini Kateelu (Civil Engineering, Spring 2025')
- Scott Fossier (Civil Engineering, Fall 2023')
- Anran Zheng (Civil Engineering, Summer 2023')

### **Master's Thesis Committee Chair/co-chair**

- Christopher Wolf (Urban and Regional Planning)

### **Master's Thesis Committee**

- Daeyun Gi (Mechanical and Aerospace Engineering, Summer 2023')

### **Independent/Directed Study Students**

- Shoujing Ke (Undergrad in Computer Science, Fall 2022')
- Harrison Stark (Undergrad in Computer Science, Spring 2023')

### **Student Research Assistants (RAs)**

#### Current RAs:

- Ksenia Velichko (Undergrad in Computer Science)
- Eliana Duarte (Undergrad in Civil Engineering, selected for the McNair Scholars Program)
- Mateo Nader (Undergrad in Civil Engineering)
- Aubrey Dolbeck (Undergrad in Geography)
- Yilong Dai (Master's student in Computer Science)
- Kaiyue Wang (Master's student in Computer Science)

#### Former RAs:

- Shoujing Ke (Undergrad in Computer Science)
- Tejaswi Polimetla (Undergrad in Economics&Geography)
- Yuxuan Zhang (Master's student in Computer Science)
- Ruoyang Xiong (Master's student in Computer Science)
- Amay Patel (Undergrad in Computer Science)
- Lin Su (M.S. in Civil Eng, admitted to UT Austin Transportation Engineering PhD program)
- Erik Huang (Undergrad in Civil Eng, admitted to Northwestern Transportation Eng PhD program)
- Qi Zheng (Undergrad in Biology)
- Jack Rummler (Undergrad in Sustainability Studies)

## **FACULTY SERVICE**

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### **Graduate Student Admissions**

- In charge of the Transportation Engineering graduate student admissions, UF 2023 -

### **Faculty Search Committee**

- Computer and Information Science and Engineering, UF 2022 - 2023

### **Steering Committees**

- Internal Steering Committee (Transit Lead), UF Transportation Institute, UF 2022 -

## PROFESSION SERVICES & AFFILIATIONS

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### Transportation Research Board (TRB) Committee Services

- AP020 Innovative Public Transportation Services & Technologies:  
Committee Member & Research Coordinator 2022 -
- AED30 Information Systems & Technology:  
Committee Member 2022 -

**Editorial Board Member**, *Transportation Research Part D: Transport and Environment* 2023 -

**Board of Directors Member**, *International Association for China Planning* 2019 - 2023

### Professional Membership

Member of Transportation Research Board (TRB)

Member of Florida Public Transportation Association

### Panel Member/Proposal Reviewer

- *Panel member* for National Cooperative Highway Research Program (NCHRP) Project 07-34:  
Toward Artificial Intelligence-Enabled Decision Support Systems for TSMO Applications 2022-
- *Panel member* for Transit Cooperative Research Program (TCRP) Project H-59:  
Racial Equity, Black America and Public Transportation 2021 - 2023
- *Panel member* for NSF CMMI/CIS Program 2023
- *Proposal reviewer* for Mineta Transportation Institute 2023
- *Ad hoc reviewer* for NSF Economics Program 2021
- *Proposal reviewer* for USDOT Tier-1 University Transportation Center CTEDD 2019

### Conference/Symposium/Workshop Organizing Committee Member

- *2023 Research-to-Practice Transit Symposium*, Caltrans/UFTI/APTA/MTI/UC Davis 2023
- *XPOTENTIAL 2022*, Association for Unmanned Vehicle Systems International (AUVERSI) 2022
- TRB 101st Annual Conference Young Members Coordinating Council “Early Academic Successful Careers: Resources and Advice” Workshop 2022
- *2022 Research-to-Practice Transit Symposium*, Caltrans/UFTI/APTA/T-Score UTC 2022
- *2021 Research-to-Practice Transit Symposium*, Caltrans/UFTI/APTA/T-Score UTC 2021

**Area Editor**, CICTP 2023, *Chinese Overseas Transportation Association (COTA)* 2023

### Manuscript/Report Reviewer

*Transportation Research Part A: Policy and Practice, Transportation Research Part D: Transport and Environment, Journal of the American Planning Association, Journal of Transport Geography, Transportation, Transport Policy, Travel Behavior and Society, Transportmetrica A: Transport Science, Journal of Land Use and Transport, Scientific Reports, Housing Studies, Environment and Planning B: Urban Analytics and City Science, Geoforum, Sustainable Cities and Society, Urban Rail Transit, Safety Science, TRB Annual Meeting, IACP Annual Meeting, National Institute of Congestion Reduction*

### Moderator/Discussant/Facilitator

- Moderator for the “Bus Stop Spacing” Session in *2023 Research-to-Practice Transit Symposium*, October 25, 2023.
- Discussant for the “Who’s Riding the Bus” Session in *Association of Collegiate Schools of Planning 2023 Chicago Annual Conference*, October 20, 2023.
- Moderator for the “Digital Future, Digital Connectivity, and Cybersecurity” Session in *2021 Research-to-Practice Transit Symposium*, October 20, 2023.

## SERVICE TO SOCIETY

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### City of Gainesville Citizen Transit Advisory Committee (CTAC)

- Providing feedback to the RTS Transit Development Plan 2024
- Providing feedback to the Transit Route Restoration Plan 2024

### City of Gainesville Climate Action Plan Development Team

- Participating in the city's climate action plan creation process 2023 - 2024

## MEDIA

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### Mentions in the Press / Media Coverage of Research

Herbert, Kiran. (December 5, 2023). Shared E-Scooters As a Last-Mile Transit Solution? *Better Bike Share Partnership*. <https://betterbikeshare.org/2023/12/05/shared-e-scooters-as-a-last-mile-transit-solution/>

Diaz, Robert. (March 3, 2023). Gainesville residents contemplate people mover system. *WUFT*. <https://www.wuft.org/news/2023/03/03/gainesville-residents-contemplate-people-mover-system/>

Spin Blog Post. (February 10, 2022). New Research Shows Positive Impacts of Micromobility May Be Underestimated. *Spin (Ford Mobility)*. <https://www.spin.app/blog-posts/new-research-shows-positive-impact-s-of-micromobility-may-be-underestimated>

Herbert, Kiran. (May 12, 2021). Xiang Yan wants to make micromobility better. *Better Bike Share Partnership*. <https://betterbikeshare.org/2021/05/12/xiang-yan-wants-to-make-micromobility-better/>

Ionescu, Diana. (April 8, 2021). How e-scooters can complement public transit. *Planetizen*. Available at: <https://www.planetizen.com/news/2021/04/112885-how-e-scooters-can-complement-public-transit>

Kuntzman, Gersh. (March 4, 2021). E-Scooters Are Best for Short Trips to Transit, Shops: Study. *Streetsblog NYC*. Available at: <https://nyc.streetsblog.org/2021/03/04/e-scooters-are-best-for-short-trips-to-transit-shops-study/>

Galoustian, Gisele. (March 1, 2021). Scoot over! Study reveals E-scooter use in Washington D.C. *Science Daily*. Available at: <https://www.sciencedaily.com/releases/2021/03/210301091147.htm>

Guest, Greta. (August 28, 2018). Commuters: Ridesourcing could fix public transit. *Michigan News*. Available at: <https://news.umich.edu/commuters-ridesourcing-could-fix-public-transit/>

### Opinion Pieces

Yan, X. (April 5, 2021). Make e-scooters work with transit, not against it. *Greater Greater Washington*. Available at: <https://ggwash.org/view/80884/make-e-scooters-work-with-transit-not-against-it>

## STATISTICAL & COMPUTATIONAL METHODS TRAINING

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- *Neural Networks for Computing* Depart. of Computer and Information Science and Engineering, UF
- *Database Management Systems* Depart. of Computer and Information Science and Engineering, UF
- *Transportation Data Analytics (Machine learning)* Department of Civil Engineering, UMich
- *Clustered and Longitudinal Analysis* Department of Biostatistics, UMich
- *Spatial Statistics* Department of Biostatistics, UMich
- *Maximum Likelihood Estimation I: Generalized Linear Models* ICPSR Summer Program, UMich
- *Quantitative Methods for Program Evaluation* Ford School of Public Policy, UMich

- *Quantitative Planning Methods*
- *Introduction to Probability Theory and Statistics*

Department of Urban and Regional Planning, UMich  
Nanjing University, China