

YIMING XU

School of Architecture, The University of Texas at Austin

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ACADEMIC APPOINTMENTS

The University of Texas at Austin

Postdoctoral Fellow, Community and Regional Planning

Sep 2023 - Present

Austin, TX

University of Florida

Research Assistant, Department of Civil and Coastal Engineering

Aug 2019 - Aug 2023

Gainesville, FL

University of Massachusetts Lowell

Research Assistant, Department of Civil and Environmental Engineering

Jun 2018 - Aug 2018

Lowell, MA

Tongji University

Research Assistant, School of Transportation Engineering

Sep 2016 - Jun 2019

Shanghai, China

EDUCATION

University of Florida

Ph.D. in Civil Engineering

Advisor: Dr. Xilei Zhao

Committee members: Dr. Lily Elefteriadou, Dr. Siva Srinivasan, Dr. Daisy Wang

Dissertation: AI-enabled Travel Demand Forecasting for Shared Mobility

Aug 2019 - May 2023

Gainesville, FL

Tongji University

M.S. in Transportation Engineering

Advisor: Dr. Jian Sun

Thesis: An Importance Sampling Approach for High-Risk Scenario Reconstruction and Accelerated Testing of Autonomous Vehicles

Sep 2016 - Jun 2019

Shanghai, China

Tongji University

B.S. in Transportation Engineering

Advisor: Dr. Jian Sun

Sep 2012 - Jun 2016

Shanghai, China

RESEARCH INTERESTS

My primary research interest lies in developing and applying **Artificial Intelligence** to enhance the **Efficiency**, **Safety**, and **Resilience** of urban transportation systems. My work focuses on the following core areas:

- **Methodologies:** Machine Learning, Explainable AI, Foundation Models/LLMs, Spatiotemporal Modeling, Digital Twin, Reinforcement Learning.
- **Application Areas:** Travel Behavior Modeling, Traffic Safety Analysis, Digital Infrastructure, Transportation Planning, Shared Mobility, Electrification of Transport, Autonomous Vehicles.

RESEARCH EXPERIENCE

Postdoctoral Fellow

School of Architecture, The University of Texas at Austin

Sep 2023 - Present

- Digital Infrastructure and Transportation Digital Twins for Monitoring, Operations, and Safety, 2026 - present
- LLM-Driven Travel Behavior Modeling: Retrieval-Augmented Generation for Predicting Trip Dynamics, 2025 - present
- Infrastructure Planning for Shared Electric Autonomous Vehicles using Deep Reinforcement Learning, 2025 - present
- Emergency Medical Service Arrival Time Estimation and Route Optimization using Traffic Digital Twin, 2025 - present
- Agent-SUMO: Integrating SUMO with AI Agents for Interactive Urban Mobility Simulation, 2025 - present
- Extended Reality-Enhanced Digital Twin for Agentic Mobile Robots, 2025 - present

- Data-Driven Modeling of E-Scooter Demand and Multimodal Interactions with Ridesourcing, 2023 - 2025, *Funded by USDOT Tier 1 UTC CM2 and UT Good Systems*
- Advancing Electric Vehicle Safety, Equity, and Infrastructure Planning for Sustainable Urban Mobility, 2024 - 2025, *Funded by NSF and UT Good Systems*
- Multilingual AI-Assisted Emergency Preparedness: Enhancing Resilience and Equity in Underserved Communities, 2024 - 2025, *Funded by City of Austin*
- Autonomous Vehicle Safety in the Smart City Era, 2024, *Funded by UT Good Systems*
- Digital Twin as Catalyst for Sustainable and Smart City, 2023 - 2024, *Funded by USDOT Tier 1 UTC CCST*
- Austin Digital Twin: Integrated 3D Modeling and Multi-Layered Data Analysis, 2023 - 2024, *Funded by UT Good Systems*
- Navigating LLM Ethics, 2023 - 2024, *Funded by NSF and UT Good Systems*

Research Assistant

Aug 2019 - Aug 2023

Department of Civil and Coastal Engineering, University of Florida

- Shared Micromobility Demand Forecasting with Deep Learning, 2021 - 2023, *Funded by USDOT Regional UTC: STRIDE and UF AI Research Catalyst Fund*
- Real-Time Traffic Monitoring Using Transit Buses as Probes, 2023, *Funded by USDOT Tier 1 UTC: CETOC*
- Evacuation Behavior Analysis using Large-Scale GPS Data, 2020 - 2022, *Funded by NIST*
- Micromobility as a Solution to Reduce Urban Traffic Congestion, 2019 - 2022, *Funded by USDOT Regional UTC: STRIDE*
- Interpretable Machine Learning on the Adoption of Ride-splitting, 2019 - 2021, *Funded by USDOT Regional UTC: STRIDE*

Research Assistant

Jun 2018 - Aug 2018

Department of Civil and Environmental Engineering, University of Massachusetts Lowell

- Vehicle Cooperation Around Lane-Changing, 2018

Research Assistant

Sep 2016 - Jun 2019

School of Transportation Engineering, Tongji University

- Data-Driven Accelerated Testing Scenario Construction for Autonomous Vehicle Safety Evaluation, 2017 - 2019
- Vehicle Turning Behavior Modeling at Mixed-Flow Intersections, 2016 - 2018

PUBLICATIONS

Peer-Reviewed Journal Papers

(*Indicates corresponding author)

First-Authored and Corresponding-Authored Publications

1. **Xu, Y.***, Ke, Q., Zhang, X., Zhao, X. (2025). ICN: Interactive Convolutional Network for Forecasting Travel Demand of Shared Micromobility. *GeoInformatica*.
2. Chio, S., **Xu, Y.***, Jiao, J. (2025). Utility or Equity? A Critical Analysis of Existing Public Electric Vehicle Charger Allocations in Austin, Texas. *Transportation Research Part D: Transport and Environment*.
3. Xu, N., **Xu, Y.***, Liu, J., Jiao, J. (2025). How Do EV Crashes Differ from ICEV Crashes: A Comparative Study of Pennsylvania. *Journal of Safety Research*.
4. Jiao, J., **Xu, Y.***, Li, Y. (2024). Exploring Spatial Heterogeneity of E-scooter's Relationship with Ridesourcing using Explainable Machine Learning. *Transportation Research Part D: Transport and Environment*.
5. Jiao, J., **Xu, Y.*** (2024). Analyzing Shared E-Scooter Trip Frequency on Urban Road Segments in Austin, TX. *Case Studies on Transport Policy*.
6. **Xu, Y.**, Zhao, X.*, Zhang, X., Paliwal, M. (2023). Real-Time Forecasting of Dockless Scooter-Sharing Demand: A Spatio-Temporal Multi-Graph Transformer Approach. *IEEE Transactions on Intelligent Transportation Systems*.

7. **Xu, Y.**, Zhao, X.*, Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T. J., Yan, X. (2022). A Highway Vehicle Routing Dataset During the 2019 Kincade Fire Evacuation. *Scientific Data*.
8. **Xu, Y.**, Yan, X., Sisiopiku, V., Merlin, L., Xing, F., Zhao, X.* (2022). Micromobility Trip Origin and Destination Inference Using General Bikeshare Feed Specification Data. *Transportation Research Record*.
9. **Xu, Y.**, Yan, X., Liu, X., Zhao, X.* (2021). Identifying Key Factors Associated with Ridesplitting Adoption Rate and Modeling Their Nonlinear Relationships. *Transportation Research Part A: Policy and Practice*.
10. **Xu, Y.**, Ma, Z., Sun, J.* (2019). Simulation of Turning Vehicles' Behaviors at Mixed-Flow Intersections Based on Potential Field Theory. *Transportmetrica B: Transport Dynamics*.
11. **Xu, Y.**, Zou, Y., Sun, J.* (2018). Accelerated Testing for Automated Vehicles Safety Evaluation in Cut-In Scenarios Based on Importance Sampling, Genetic Algorithm and Simulation Applications. *Journal of Intelligent and Connected Vehicles*.

Co-Authored Publications

1. Wang, H., Davis, W., **Xu, Y.**, Yu, J., Mai, G., Jiao, J.* (2025). Street Semantic Tree: A Knowledge-driven GeoAI Framework for Urban E-scooter Ridership Classification. *International Journal of Geographical Information Science*.
2. Jiao, J., Afroogh, S.*, **Xu, Y.**, Phillips, C. (2025). Navigating LLM Ethics: Advancements, Confrontations, and Future Trajectories. *AI and Ethics*.
3. Wang, T., He, C., Li, H., Li, Y., **Xu, Y.**, Wang, Y., Jiao, J. (2025). HLCG: A Hierarchical Lane-Changing Gaming Decision Model for Heterogeneous Traffic Flow on Two-Lane Highways. *Transportation Research Record*.
4. Zhang, X., Zhao, X., **Xu, Y.**, Lovreglio, R.*, Nilsson, D. (2024). Situational-Aware Multi-Graph Convolutional Recurrent Network (SA-MGCRN) for Travel Demand Forecasting During Wildfires. *Transportation Research Part A: Policy and Practice*.
5. Zhang, X.*, Zhou, Z., **Xu, Y.**, Zhao, X. (2024). Analyzing Spatial Heterogeneity of Ridesourcing Demand Determinants Using Explainable Machine Learning. *Journal of Transport Geography*.
6. Jiang, S., Sun, Y., Wong, W.*, **Xu, Y.**, Zhao, X. (2024). Real-Time Urban Traffic Monitoring Using Transit Buses as Probes. *Transportation Research Record*.
7. Zhao, X.*, **Xu, Y.**, Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T. J., Wu, A., Yan, X. (2022). Estimating Wildfire Evacuation Decision and Departure Timing Using Large-Scale GPS Data. *Transportation Research Part D: Transport and Environment*.
8. Wu, A., Yan, X.*, Kuligowski, E., Lovreglio, R., Nilsson, D., Cova, T. J., **Xu, Y.**, Zhao, X. (2022). Wildfire Evacuation Decision Modeling Using GPS Data. *International Journal of Disaster Risk Reduction*.
9. Merlin, L.*, Yan, X., **Xu, Y.**, Zhao, X. (2021). A Segment-Level Model of Shared, Electric Scooter Origins and Destinations. *Transportation Research Part D: Transport and Environment*.
10. Qi, X., Ni, Y., **Xu, Y.**, Tian, Y., Wang, J., Sun, J.* (2021). Autonomous Vehicles' Car-Following Drivability Evaluation Based on Driving Behavior Spectrum Reference Model. *Transportation Research Record*.
11. 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 Bikeshare. *Transportation Research Part D: Transport and Environment*.
12. Sun, J.*, Qi, X., **Xu, Y.**, Tian, Y. (2019). Vehicle Turning Behavior Modeling at Conflicting Areas of Mixed-Flow Intersections Based on Deep Learning. *IEEE Transactions on Intelligent Transportation Systems*.
13. Ma, Z., Xie, J., Qi, X., **Xu, Y.**, Sun, J.* (2017). Two-Dimensional Simulation of Turning Behavior in Potential Conflict Area of Mixed-Flow Intersections. *Computer-Aided Civil and Infrastructure Engineering*.

Manuscripts Under Review or Revision

1. **Xu, Y.***, Jiao, J. (2025). Evaluating Retrieval-Augmented Generation Strategies for Large Language Models in Travel Mode Choice Prediction. *Under review. Preprint at arXiv:2508.17527*.
2. **Xu, Y.***, Jiao, J. (2025). Exploring Autonomous Vehicle Crash Severity Using Interpretable Machine Learning and Large Language Models. *Under review*.
3. **Xu, Y.***, Jiao, J., Chen, Y. (2025). An Augmented Dataset of Autonomous Vehicle Collisions in California. *Under review*.

4. **Xu, Y.***, Jiao, J., Wang, H. (2025). From Data to Decisions: An Urban Digital Twin Framework for Sustainable and Proactive Urban Management. *Under review. Preprint at SSRN 4958614.*
5. Wang, H.*, Jiao, J., **Xu, Y.** (2025). Street Function Representation Learning on Long-Term Traffic Flow Prediction. *Under review.*
6. Jiao, J., Park, J., **Xu, Y.***, Sussman, K., Atkinson, L. (2025). SafeMate: A Modular RAG-Based Agent for Context-Aware Emergency Guidance. *Under review. Preprint at arXiv:2505.02306.*

Peer-Reviewed Conference

1. Yehia, A., Byeon, J., Wang, T., Wang, H., **Xu, Y.**, Jiao, J., Claudel, C. (2026). ARCAS: An Augmented Reality Collision Avoidance System with SLAM-Based Tracking for Enhancing VRU Safety. *2026 IEEE Intelligent Vehicles Symposium (IV), Detroit, MI*
2. **Xu, Y.**, Jiao, J. (2026). Evaluating Retrieval-Augmented Generation Strategies for Large Language Models in Travel Mode Choice Prediction. *Transportation Research Board 105th Annual Meeting, Washington, D.C.*
3. **Xu, Y.**, Jiao, J., Deng, C. (2026). Analyzing Factors Associated with Autonomous Vehicle Crash Severity Using Interpretable Machine Learning. *Transportation Research Board 105th Annual Meeting, Washington, D.C.*
4. Lewis, S., Jiao, J., **Xu, Y.**, Park, J., Phillips, C. (2026). A Decentralized Digital Twin via Crowdsourced Sensing and Browser-Based Edge Computation. *AAAI 2026 Deployable AI Workshop, Singapore. (Accepted)*
5. **Xu, Y.**, Park, J., Jiao, J. (2025). LLM-Powered Digital Twins for Interactive Urban Mobility Simulation: Integrating SUMO with AI Agents. *NeurIPS 2025 UrbanAI Workshop, San Diego, CA.*
6. Jiao, J., Lewis, S., **Xu, Y.**, Park, J., Phillips, C. (2025). OpenCityCorpus: A Large-Scale, Harmonized, and LLM-Ready Corpus of Urban Data for Scientific Research. *NeurIPS 2025 AI for Science Workshop, San Diego, CA.*
7. **Xu, Y.**, Jiao, J. (2025). Assessing the Effects of Built Environment and Demographics on E-Scooter and E-Bike Usage on City Streets: A Case Study of Austin, TX. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
8. **Xu, Y.**, Jiao, J., Wang, H. (2025). An Urban Digital Twin Framework for Sustainable Transportation and Smart Cities: A Case Study of Austin, TX. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
9. **Xu, Y.**, Jiao, J., Li, Y. (2025). Exploring Spatial Heterogeneity of E-scooter's Relationship with Ridesourcing using Explainable Machine Learning. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
10. Xu, N., **Xu, Y.**, Liu, J., Jiao, J. (2025). How Do EV Crashes Differ from ICEV Crashes: A Comparative Study of Pennsylvania. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
11. Wang, H., Jiao, J., **Xu, Y.** (2025). Street Function Representation Learning on Long-Term Traffic Flow Prediction. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
12. Wang, H., Davis, W., Jiao, J., **Xu, Y.** (2025). Urban E-scooter Usage Prediction Based on Semantic Descriptions: A Knowledge-Driven AI. *Transportation Research Board 104th Annual Meeting, Washington, D.C.*
13. Wang, T., Guo, Q., He, C., Li, H., **Xu, Y.**, Wang, Y., Jiao, J. (2025). Impact of Connected and Automated Vehicles on Longitudinal and Lateral Performance of Heterogeneous Traffic Flow in Shared Autonomy on Two-Lane Highways. *WCX SAE World Congress Experience, Detroit, MI*
14. Chio, S., **Xu, Y.**, Jiao, J. (2024). Utility or Equity? A Critical Analysis of Existing Public Electric Vehicle Charger Allocations in Austin, Texas. *Association of Collegiate Schools of Planning Annual Conference, Seattle, WA*
15. Jiang, S., **Xu, Y.**, Wai, W., Zhao, X. (2024). Real-Time Urban Traffic Monitoring Using Transit Buses as Probes. *Transportation Research Board 103rd Annual Meeting, Washington D.C.*
16. **Xu, Y.**, Ke, Q., Zhao, X. (2023). ICN: Interactive Convolutional Network for Forecasting Travel Demand of Shared Micromobility. *Transportation Research Board 102nd Annual Meeting, Washington, D.C.*

17. **Xu, Y.**, Xiong, R., Lovreglio, R., Nilsson, D., Zhao, X. (2023). Forecasting Real-Time Travel Demand During Wildfire Evacuations: A Situational-Aware Multi-Graph Convolutional Recurrent Network (SA-MGCRN) Approach. *Transportation Research Board 102nd Annual Meeting, Washington, D.C.*
18. **Xu, Y.**, Paliwal, M., Zhao, X. (2022) Real-Time Forecasting of Dockless Scooter-Sharing Demand: A Context-Aware Spatio-Temporal Multi-Graph Convolutional Network Approach. *Transportation Research Board 101st Annual Meeting, Washington, D.C.*
19. Zhao, X., **Xu, Y.**, Lovreglio, R., Kuligowski, E., Nilsson, D., Cova, T. J., Wu, A., Yan, X. (2022) Estimating Wildfire Evacuation Decision and Departure Timing Using Massive GPS Data. *Transportation Research Board 101st Annual Meeting, Washington, D.C.*
20. **Xu, Y.**, Yan, X., Sisiopiku, V., Merlin, L., Xing, F., Zhao, X. (2021). Micromobility Trip Origin and Destination Inference Using General Bikeshare Feed Specification (GBFS) Data. *Transportation Research Board 100th Annual Meeting, Washington, D.C.*
21. Qi, X., Ni, Y., **Xu, Y.**, Tian, Y., Wang, J., Sun, J. (2021). Autonomous Vehicles' Car-Following Drivability Evaluation Based on Driving Behavior Spectrum Reference Model. *Transportation Research Board 100th Annual Meeting, Washington, D.C.*
22. Chen, D., **Xu, Y.**, Sun, J. (2019). Vehicle Cooperation Around Lane-Changing. *Transportation Research Board 98th Annual Meeting, Washington, D.C.*

Patents

1. Sun, J., **Xu, Y.**, Yu, R. A Road-Virtual Parallel Testing Scheme for Autonomous Vehicles. China Patent No.201810417326.2, issued October 2018.
2. Sun, J., **Xu, Y.**, Ye, Y. A Scenario Regeneration and Accelerated Test Method for Autonomous Vehicles. China Patent No.201710568536.7, issued October 2017.

Other Publications

1. Jiao, J., **Xu, Y.** (2024). Scooter-Share Travel Demand Forecast: A Context-Aware LSTM Recurrent Neural Network Approach. Project Report, *USDOT Tier 1 UTC: Cooperative Mobility for Competitive Megaregions*.
2. Jiao, J., **Xu, Y.** (2024). Digital Twin as Catalyst for Sustainable and Smart City. Project Report, *USDOT Tier 1 UTC: Center for Climate-Smart Transportation*.
3. Zhao, X., Sisiopiku, V., Steiner, R., **Xu, Y.**, Liu, Y., Yan, D., Khalil, J., Yang, W., Jafarzadehfadaki, M., Suarez, J. (2022). Micromobility as a Solution To Reduce Urban Traffic Congestion. Project Report, *USDOT Regional UTC: Southeastern Transportation Research, Innovation, Development and Education Center*.
4. **Xu, Y.** (2025). AI in Urban Infrastructure and Utilities. Book Chapter, *Smart Cities with AI*. Under Review.

PRESENTATIONS & TALKS

1. **Xu, Y.** (2026). Digital Twins for Smarter Cities. *Transportation Research Board Annual Meeting, Washington, DC*.
2. **Xu, Y.** (2026). AI-Powered Transportation Digital Twin. *Transportation Research Board Annual Meeting, Washington, DC*.
3. **Xu, Y.** (2025). Urban Digital Twins for Smart Cities. *City of Austin - Digital Twin Partnership in Action Workshop, Austin, TX*.
4. **Xu, Y.** (2025). LLM-Enabled Transportation Digital Twin for Smart Cities. *Smart Cities and AI Symposium, Austin, TX*.
5. **Xu, Y.** (2025). Digital Twins and LLM Agents for Smart Cities. *Good Systems Symposium, Austin, TX*.
6. **Xu, Y.** (2024). A Digital Twin for the City of Austin. *2nd Annual Smart Cities and AI Innovations Symposium, Austin, TX*.
7. **Xu, Y.** (2024). Where There's Fire, There's Smoke. Using AI and Digital Twins to Prepare for Climate Change. *Smart Cities Connect Conference, Austin, TX*.
8. **Xu, Y.** (2023). Real-Time Forecasting of Dockless Scooter-Sharing Demand. *UT Smart Cities Talk Series, Austin, TX*.

9. **Xu, Y.**, Paliwal, M., Zhao, X. (2021). Real-Time Forecasting of Dockless Scooter-Sharing Demand: A Spatio-Temporal Multi-Graph Convolutional Network Approach. *The 2021 TRB Workshop Sponsored by AED50, Washington, DC. & The UF AI Research Catalyst Fund Seminar.*
10. **Xu, Y.**, Yan, X., Liu, X., Zhao, X. (2020). Applying Interpretable Machine Learning to Identify Key Factors Associated with Neighborhood Ride-Splitting Adoption Rate and to Model Their Nonlinear Relationships. *Transportation Research Board ABJ70 Committee meeting, Washington, DC.*

RESEARCH GRANTS

Digital Twins as a Catalyst for Sustainable and Smart Cities **Oct 2023 - Sep 2024**

J. Jiao (PI), Y. Xu (co-PI), D. Niyogi (co-PI)

- USDOT Tier 1 University Transportation Center: Center for Climate-Smart Transportation (CCST), **\$241,478**

A Highway Vehicle Routing Dataset During the 2019 Kincade Fire Evacuation **Apr 2021 - Oct 2021**

X. Zhao (PI), Y. Xu (co-PI), R. Lovreglio, E. Kuligowski, D. Nilsson

- Natural Hazards Center Weather Ready Research Award Program, **\$2,500**

TEACHING EXPERIENCE

CRP 381Q: Quantitative Methods

Co-Instructor

Spring 2026

The University of Texas at Austin

UGS 302 Ethical AI: Good Systems

Guest Lecturer

Spring 2025

The University of Texas at Austin

BDP 319 Introduction to Smart Cities

Guest Lecturer

Spring 2025

The University of Texas at Austin

CRP 386 Urban Geographic Information Systems

Guest Lecturer

Fall 2024

The University of Texas at Austin

CRP 395D/386 Smart City Practicum

Guest Lecturer

Spring 2024

The University of Texas at Austin

LA 329 Global Learning Seminar

Guest Lecturer

Spring 2024

The University of Texas at Austin

CGN 6905 Machine Learning Applications in Civil Engineering

Teaching Assistant

Spring 2021

University of Florida

MENTORING EXPERIENCE

Ross Burgett

M.S. Student, School of Architecture

Fall 2025 - Present

The University of Texas at Austin

Jihyung Park

M.S. Student, Department of Computer Science

Spring 2025 - Fall 2025

The University of Texas at Austin

Zhewei Xie

M.S. Student, Department of Economics

Spring 2025 - Fall 2025

The University of Texas at Austin

Tianyi Wang

M.S. Student, Department of Mechanical Engineering and Materials Science

Summer 2024 - Summer 2025

Yale University

Claire Deng

High School Student

Fall 2024 - Summer 2025

Westwood High School

Yu Chen

M.S. Student, School of Architecture

Fall 2024 - Summer 2025

The University of Texas at Austin

Aaron Purewal

B.S. Student, McCombs School of Business

Fall 2023 - Spring 2024

The University of Texas at Austin

Xiaohe Yin

Research Assistant, Tandon School of Engineering

Kay Kong

B.S. Student, Department of Computer Science

Jakob Love

B.S. Student, Department of Aerospace Engineering and Engineering Mechanics

Ruoyang Xiong

M.S. Student, Department of Computer and Information Science and Engineering

Yepeng Liu

M.S. Student, Department of Computer and Information Science and Engineering

Mudit Paliwal

M.S. Student, Department of Industrial and Systems Engineering

Alex Wu

B.S. Student, Department of Civil and Coastal Engineering

Fall 2023 - Spring 2024

New York University

Fall 2023 - Spring 2024

The University of Texas at Austin

Fall 2023 - Spring 2024

The University of Texas at Austin

Fall 2021 - Fall 2022

University of Florida

Fall 2020 - Fall 2021

University of Florida

Spring 2020 - Spring 2021

University of Florida

Spring 2020 - Fall 2021

University of Florida

SERVICE AND PROFESSIONAL AFFILIATIONS

Journal Reviewer

- Accident Analysis and Prevention
- Applied Geography
- Case Studies on Transport Policy
- Cities
- Computers & Graphics
- Computers, Environment and Urban Systems
- Humanities and Social Sciences Communications
- Journal of Cycling and Micromobility Research
- Journal of Intelligent Transportation Systems: Technology, Planning, and Operations
- Journal of Transport Geography
- Multimodal Transportation
- PeerJ Computer Science
- Research in Transportation Economics
- Transport Policy
- Transport Reviews
- Transportmetrica A: Transport Science
- Transportation Research Interdisciplinary Perspectives
- Transportation Research Part A: Policy and Practice
- Transportation Research Part C: Emerging Technologies
- Transportation Research Part D: Transport and Environment
- Transportation Research Record
- Travel Behaviour and Society

Conference Reviewer

- COTA International Conference of Transportation Professionals
- IEEE Intelligent Vehicles Symposium
- International Association for China Planning (IACP) Conference
- Transportation Research Board Annual Meeting

Member

- Association of Collegiate Schools of Planning (ACSP)
- American Association of Geographers (AAG)
- Chinese Overseas Transportation Association (COTA)
- World Transportation Convention (WTC) GH0401 Technical Committee
- Institute of Transportation Engineers (ITE) Student Chapter (2019 - 2023)

HONORS & AWARDS

- Top 10 Most Cited Articles, in *Transportation Research Part A: Policy and Practice*, 2021 - Present
- Transportation Research Board Annual Meeting Travel Award, *University of Florida*, 2020, 2021, 2022, and 2023
- Graduate Academic Scholarship, *Tongji University*, 2016, 2017, and 2018
- Bachelor's Academic Outstanding Scholarship, *Tongji University*, 2013

ADDITIONAL PROFESSIONAL EXPERIENCE

DiDi Labs, Research Intern

Mountain View, CA, Sep 2022 - Dec 2022

- Developed a motion prediction model incorporating GCN, VAE, and attention operations.
- Evaluated the proposed model using Waymo Open Dataset. The proposed model achieved **13% improvement** in predicting accuracy and 70% improvement in trajectory diversity compared with the baseline (i.e., Multipath++ model).

AREAS OF TEACHING INTEREST

- Transportation Engineering
- Transportation Planning
- Machine Learning
- Big Data Analytics
- Intelligent Transportation Systems
- Smart Cities

REFERENCES

Junfeng Jiao, Ph.D.

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School of Architecture
The University of Texas at Austin
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(Postdoctoral research advisor)

Xilei Zhao, Ph.D.

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Department of Civil and Coastal Engineering
University of Florida
Email: xilei.zhao@essie.ufl.edu
Phone: (352) 294-7159
(Ph.D. advisor)

Lily Elefteriadou, Ph.D.

Barbara Goldsby Professor
Department of Civil and Coastal Engineering
University of Florida
Email: elefter@ce.ufl.edu
Phone: (352) 294-7802
(Ph.D. dissertation committee member)