Yifan Wang

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Research directions: AI/ML for traffic prediction, Causal inference, and Uncertainty quantification.
I'm currently looking for 2026 Spring/Fall PhD programs.

Experience

Now   🔖 **Incoming Research Assistant, New York University Shanghai**
Department: Urban Studies & Computer Science
Advisor: Prof.Zhaonan Wang

2022 - 2025   🔖 **Master, Tongji University**
Major: Transportation Engineering, College of Transportation
Advisor: Prof.Xuesong Wang
English: IEILS 6.5 (6.0)
GPA: 85.6/100

2018 - 2022   🔖 **Bachelor, Tongji University**
Major: Applied Mathematic, College of Mathematical Science
GPA: 87.8/100

Research Publications

Journal Articles

1. **Y. Wang**, X. Wang*, T. Wang, and M. Quddus, "Freeway real-time crash prediction using floating car data," *Transportation Research Part C: Emerging Technologies (Q1 TOP, IF=7.9)*, vol. 171, 2025. 🔗 DOI: 10.1016/j.trc.2025.105009.

2. **Y. Wang** and X. Wang*, "Interpretability in traffic crash analytics: A semi-data-driven Bayesian network approach with application to highway safety," 3-rd reivew in Accident Analysis and Prevention (Q1, IF=6.2).

Conference Proceedings

1. **Y. Wang**, Z. Chen, and X. Wang*, "Optimization of road geometry parameters based on vehicle operation state," in *Transportation Research Board 104th Annual Meeting*, Washington D.C., USA, 2025.

Projects

MIT-UF-NEU 2025 Joint Summer Research Camp

Now   🔖 Research topic: Uncertainty quantification and calibration of EV charging demand. The camp is hosted by Prof.Jinhua Zhao at MIT, Prof.Shenhao Wang at UF, Prof.Haris Koutsopoulos at NEU. I will cooperate with Dr.Yunhan Zheng at MIT.

Operational Safety Evaluation of Autonomous Driving Vehicles

2023.12-2024.04   🔖 Collect the traffic participant data extracted from the cameras installed on the roadside.

🔖 Identify the target vehicle trajectory from the traffic participant data.

Projects (continued)

Driving Alertness Screening and Application Research

2022.09-2023.02   ◾ Merge different datasets from driving simulation experiments, and write a manual about data cleaning.

◾ Build the statistical models and analyze the important factors of brake reaction time and lane departure.

Traffic Safety Management and Risk Control in Suzhou, China

2023.09-2024.06   ◾ Analyze the relationships between different variables using the Bayesian network, like traffic flow, weather, and crash.

Skills

Software   ◾ Python, Matlab, Stata, SPSS, ArcGIS, LaTeX

Ability   ◾ Advanced statistic analysis, Causal inference, Machine learning, Traffic big data

Miscellaneous Experience

Awards and Achievements

2019   ◾ **Second prize**, National college students mathematics competition, Mathematical society of China.

2020   ◾ **Third scholarship**, Tongji University.

◾ **Scholarships for social activities**, Tongji University.

Organization Experience

2020-2021   ◾ **Chairman**, Mathematics modeling organization, Tongji University.