Yifan Wang

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Education

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

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

Work Experience

2025.10 - now   🔖 **Research Assistant, New York University Shanghai**
Department: Computer Science
Advisor: Prof. Zhaonan Wang

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*, "Causal relationship discovery for highway crash analysis using semi-data-driven Bayesian network.," *Accident Analysis and Prevention (Q1, IF=6.2)*, vol. 221, 2025. 🔗 DOI: 10.1016/j.aap.2025.108181.

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

2025.05 - 2025.09   🔖 Title: 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 worked with Dr.Yunhan Zheng at MIT.

Projects (continued)

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.

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

Interests	Traffic Prediction, Causal inference, Uncertainty Quantification
Software	Python, Matlab, Stata, SPSS, ArcGIS, LaTeX

Miscellaneous Experience

Teaching

Fall Semester 2024

- **Applied Statistics**
  Teaching Assistant, Graduate Course
  Advisor: Prof. Xiaoyu Zhang, College of Mathematical Science, Tongji University.

Spring Semester 2024

- **Transportation Statistics Analysis and Modeling**
  Teaching Assistant, Undergraduate Course
  Advisor: Prof. Xuesong Wang and Prof. Lishengsa Yue, College of Transportation, Tongji University.

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.

Reviewer

Journals

- IEEE Transactions on Intelligent Vehicles (Q1).