# Yifan Wang

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## Education

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| 2022.09 - now | **Master Candidate, Tongji University**<br>College: College of Transportation<br>Major: Transportation Engineering<br>Expect graduation time: Sep, 2025<br>Advisor: Prof. Xuesong Wang<br>English: IEILS 6.5 (6.0)<br>GPA: 85.55/100 |
| 2018.09 - 2022.07 | **Bachelor of Science, Tongji University**<br>College: College of Mathematical Science<br>Major: Applied Mathematic<br>GPA: 87.76/100, TOP 30% |

## 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," 2-nd 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

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

### Operational Safety Evaluation of Autonomous Driving Vehicles

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| 2023.12-2024.04 | Clean the traffic participant data extracted from the cameras installed on the roadside.<br>Identify the target vehicle trajectory from the traffic participant data. |

## Projects (continued)

### *Driving Alertness Screening and Application Research*

2022.09-2023.02
- Merge and clean different datasets from driving simulation experiments, like vehicle and physiological data, and write a manual about data cleaning.
- Build the traditional 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.