

# Li Song




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## EDUCATION

2019- Now	Ph.D.	GPA: 4/4	Rank: NA	Top NA
	College of Engineering, University of North Carolina at Charlotte Major: Intelligent Transportation Management and Control. (Advisor: Prof. Wei Fan)			
2017-2019	M. Eng. (Research)	GPA: 3.35/4	Rank: 2/34	Top 5%
	School of Transportation Science and Engineering, Harbin Institute of Technology. Major: Transportation Planning and Management			
2013-2017	B. Eng.	GPA: 3.7/4	Rank: 2/113	Top 1%
	College of Transport and Communications, Shanghai Maritime University Major: Transportation and Management			

## HONOR & AWARDS

### International Level

- 2021 Don Blackburn Memorial Scholarship, North Carolina Section of the Institute of Transportation Engineers, NC, USA (1%, 21)
- 2018 “Excellent Oral Presentation”, *International Conference of Intelligent Transportation Engineering* (ICITE 2018), Singapore (5%, 116)
- 2016 “Honorable Mention”, *The Mathematical Contest in Modeling*, USA (20%, 37338)

### National Level

- 2018 “National Scholarship for Graduate Students” (3%, 110)
- 2015 “Second Prize”, *National Undergraduate Mathematical Contest In Modeling* (3.4%, 85955)

### Municipal Level

- 2017 “Outstanding Graduate of Shanghai” (5%, 174000)
- 2015 “Shanghai Scholarship” (1%, 113)
- 2015 “First Prize”, *Undergraduate Mathematical Contest In Modeling, Shanghai*

### School Level

- 2018 “First-Class Scholarship for Postgraduates” & “Excellent Students” (12%, 34)
- 2017 “Recommended for Postgraduate Student without Examination” (2%, 4147)
- 2017 “Excellent Dissertation of Shanghai Maritime University” (5%, 113)
- 2016 “School Principal Scholarship” & “Excellent Student” (2%, 113)
- 2015 “School Principal Scholarship” & “Excellent students” (2%, 113)
- 2014 “School Second-class Scholarship” & “Triple-A student” (5%, 198)

## PUBLICATIONS

- 2021 **Song, L.**, Fan, W. and Li, Y. (2021). Time-of-day variations and the temporal instability of multi-vehicle crash injury severities under the influence of alcohol or drugs after the Great Recession. *Analytic Methods in Accident Research*, 32, 100183. (SCI, Q1, IF:11.8, Ranked 1st in Transportation)
- 2021 **Song, L.**, Fan, W.,# Li, Y., Wu, P. (2021). Exploring Pedestrian Injury Severities at Pedestrian-Vehicle Crash Hotspots with An Annual Upward Trend: A Spatiotemporal Analysis with Latent Class Random Parameter Approach, *Journal of Safety Research*, 76, 184-196. (SCI, Q2, IF: 3.5)
- 2021 **Song, L.**, Li, Y., Fan, W.,# Liu, P. (2021). Mixed Logit Approach to Analyzing Pedestrian Injury

- Severity in Pedestrian-Vehicle Crashes in North Carolina: Considering Time of Day and Day of Week, Traffic Injury Prevention. (SCI, Q4, IF: 1.5)
- 2021 **Song, L.**, Fan, W.,# Liu, P. (2021). Exploring the effects of connected and automated vehicles at fixed and actuated signalized intersections with different market penetration rates, *Transportation Planning and Technology*, 44(6), 577-593. (SCI, Q4, IF: 1.2)
- 2021 **Song, L.**, Fan, W.# (2021). Exploring Truck Driver-Injury Severity at Intersections Considering Heterogeneity in Latent Classes: A Case Study of North Carolina, *International Journal of Transportation Science and Technology*, 10(2), 110-120. (EI)
- 2021 Li, Y., **Song, L.** and Fan, W. (2021). Day-of-the-week variations and temporal instability of factors influencing pedestrian injury severity in pedestrian-vehicle crashes: a random parameters logit approach with heterogeneity in means and variances. *Analytic Methods in Accident Research*, 29, 100152. (SCI, Q1, IF:11.8)
- 2021 Wu, P., **Song, L.**, Meng, X.# (2021). Influence of built environment and roadway characteristics on the frequency of vehicle crashes caused by driver inattention: a comparison between rural roads and urban roads. *Journal of Safety Research*. (SCI, Q3, IF: 3.5)
- 2021 Wu, P., Meng, X.#, **Song, L.** (2021). Bayesian space-time modeling of bicycle and pedestrian crash risk by injury severity levels to explore the long-term spatiotemporal effects. *Physica A: Statistical Mechanics and its Applications*, 581, 126171. (SCI, Q2, IF:3.3)
- 2021 Wu, P., Meng, X.#, **Song, L.** (2021). Identification and spatiotemporal evolution analysis of high-risk crash spots in urban roads at the microzone-level: Using the space-time cube method. *Journal of Transportation Safety and Security* (SCI, Q3, IF:3.0)
- 2020 **Song, L.**, Li, Y., Fan, W., and Wu, P. (2020). Modeling pedestrian-injury severities in pedestrian-vehicle crashes considering spatiotemporal patterns: insights from different hierarchical Bayesian random-effects models. *Analytic Methods in Accident Research*, 28, 100137. (SCI, Q1, IF:11.8, Ranked 1st in Transportation Journals)
- 2020 **Song, L.** and Fan, W. (2020). Combined Latent Class and Partial Proportional Odds Model Approach to Exploring the Heterogeneities in Truck-Involved Severities at Cross and T-Intersections, *Accident Analysis and Prevention*, 144, 105638. (SCI, Q1, IF: 5.0)
- 2020 Wu, P., Meng, X., **Song, L.** (2020). A novel ensemble learning method for crash prediction using road geometric alignments and traffic data. *Journal of Transportation Safety & Security*. 12(9), 1128-1146. (SCI, Q3, IF:3.0)
- 2020 Wang, X., **Song, L.**, Wu, Z., Wu, P. (2019). Development of a freeway traffic noise prediction model based on equivalent sound source at the shoulder. *Proceedings of the Institution of Civil Engineers-Transport*. (SCI, Q4)
- 2019 Chen, J., Xue, K., **Song, L.**#, et al. (2019). Periodicity of world crude oil maritime transportation: Case analysis of Aframax Tanker market. *Energy Strategy Reviews*, 25, 47-55. (SCI, Q2, IF:6.4).
- 2019 Wu, P., Meng, X.#, **Song, L.**, Zuo, W. (2019). Crash Risk Evaluation and crash severity pattern analysis for different types of urban junctions: fault tree analysis and association rules approaches. *Transportation research record*, 2673(1), 403-416. (SCI, Q4, IF:1.6)
- 2019 Wang, X., **Song, L.**, Wu, P., Yu, S. (2019). Analysis of unconventional design for signalized and closely-spaced T-intersections. In 2019 19<sup>th</sup> COTA conference International Conference of Transportation Professionals, 2636-2647. (EI)
- 2018 Wang, X., **Song, L.**, Wu, P. (2018). A novel method of island port's transport: automatic guided vehicle approach. In 2018 3rd IEEE International Conference on Intelligent Transportation Engineering, 219-224. (EI)
- 2018 **Song, L.**, Chen, J., Li, X. K., Liu, X., Fei, Y., Yu, H. (2018). Periodical characteristics of shipbuilding

market activity: A wavelet analysis. *Journal of Marine Science and Technology*, 26(5), 692-702. (SCI, Q4).

## **PATENT**

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- 2018 Wang, X., **Song, L.**, Wu, P. (2018). A fire alarm and automatic fire extinguishing system for dangerous chemicals containers, Patent 201810446653.0.
- 2018 Wang, X., **Song, L.**, Wu, P. (2018). An automatic connection device for automatic guided vehicle, Patent 201810167525.2.

## **CONFERENCE PRESENTATION**

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- 2020 Song, L., (2020). Multimodal Session. 2020 NCSITE Annual Meeting. (Host)
- 2021 Song, L., (2021). Impacts of CAVs on transfer-based DQN controlled signal intersection: insights from mixed traffic and information levels. CEE Grad Student Symposium Submission 2021. (Oral)
- 2021 Song, L., (2021). Time-of-day variations and the temporal instability of multi-vehicle crash injury severities under the influence of alcohol or drugs: insights from the economic cycle after the Great Recession. 2021 COTA Research Lightning Talk. (Oral)
- 2020 Song, L., (2020). Exploring pedestrian injury severities at pedestrian-vehicle crash hotspots with an annual upward trend: a spatiotemporal analysis with latent class random parameter approach. In 2020 3rd CAMMSE Research Symposium. Online. (Student lightning talks)
- 2018 Song, L. (2018). A novel method of island port's transport: automatic guided vehicle approach. In 2018 3rd IEEE International Conference on Intelligent Transportation Engineering (ICITE). Singapore. (Honor: Excellent Oral Presentation)
- 2021 Song, L., Fan, W., (2021). Title: Exploring the effects of connected and automated vehicles at fixed and actuated signalized intersections with different market penetration rates. In 2021 Transportation Research Board 100th Annual Meeting. Presentation Number: TRBAM-21-00365.
- 2020 Song, L., Fan, W., Li, Y., and Wu, P. (2020). Exploring pedestrian injury severities at pedestrian vehicle crash hotspots with an annual upward trend: a spatiotemporal analysis with latent class random parameter approach. North Carolina Department of Transportation Research & Innovation Summit 2020. NC. United States.
- 2020 Wang, X., Song, L., Wu, P., (2020). Research on Container Transportation's Discrete Choose Model Considering Carbon Tax. In 2020 Transportation Research Board 99th Annual Meeting. Washington DC, United States.
- 2019 Wang, X., Song, L., Wu, P., Yu, S. (2019). Analysis of unconventional design for signalized and closely-spaced T-intersections. In 2019 19th COTA conference International Conference of Transportation Professionals (CICTP2019). Nanjing, China.
- 2019 Wang, X., Song, L., Wu, Z., & Wu, P. (2019). Development of a Traffic Noise Prediction Model Based on Equivalent Sound Source at the Road Shoulder. In 2019 Transportation Research Board 98th Annual Meeting. Washington DC, United States.
- 2018 Wang, X., Song, L., Bai, Q. (2018). Exploring Traffic Noise-Oriented Traffic Signal Warrant: A Bi-level Programming Approach. In 2018 Transportation Research Board 97th Annual Meeting. Washington DC, United States.

## **COMMUNITY SERVICE & ACTIVITIES**

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- 2020-Now **President** of ITE Student Chapter of UNCC  
Invite four speakers from industrial fields, host one session in NCSITE meeting
- 2020-Now **Research Assistant**, NCDOT Projects: CAV Impacts on Transportation Systems and Revenue
- 2019 **Teaching Assistant**, INES-8090-092 & 003: Top Infrastructure and Environment System
- 2019-Now **Member** of Chinese Overseas Transportation Association (COTA)

2019-Now	<b>Reviewer</b> of Transportation Research Board (TRB) Annual Meeting, COTA International Conference for Transportation Professionals, International Journal of Transportation Science and Technology, Journal of Traffic and Transportation Engineering (English Edition), Cogent Engineering, Connection Science
2017-2018	<b>Participate in Engineering and Academic Projects:</b> signal control system, emissions assessment, and intersection reconstruction
2018/2	<b>Intern: Jiangxi General Institute of Urban and Rural Planning and Design</b> Participate in one expressway expansion and one underground parking lot project
2017/3-8	<b>Intern: TRC of Shanghai Jiao Tong University Architectural Design and Planning Co., Ltd.</b> Participate in one safety assessment, three park design, and three traffic impact analysis projects
2016/5	<b>Practice in Chinese and South Korean Port:</b> Zhangjiagang - Shanghai - Busan – Kuangyang
2014/7-8	<b>Summer Teaching Support Volunteer Activity:</b> Teaching and raising funds

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