

# Junjie Hu

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[ORCID](#) | [Google Scholar](#) | [Research Gate](#)



## EDUCATION

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09/2023-6/2026 **Central South University, Changsha, China**

M.Sc., Traffic Engineering

Advisor: Prof. Dr. Jaeyoung Jay Lee

09/2019-6/2023 **Central South University, Changsha, China**

B.Sc. Transportation Planning and Management

Advisor: Prof. Dr. Guohua Wu & Prof. Dr. Jaeyoung Jay Lee

## HONORS AND SCHOLARSHIPS

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- 09/2023 **China Graduate Student Mathematical Modelling Competition** (National Second Prize)  
03/2022 **The Mathematical Contest in Modeling Competition** (H Prize)  
03/2022 **Chinese University Student Science Contest on Energy Saving & Emission Reduction Competition** (National Third Prize)  
12/2021 **National College Student Logistics Simulation Competition** (National Third Prize)  
12/2021 **Asia and Pacific Mathematical Contest in Modeling** (National Third Prize)  
09/2020-09/2022 **Academic Scholarship for Central South University** (Third Prize for three consecutive years)

## PUBLICATIONS

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- #4 [Hu, J., Hu, C., Yang, J., Bai, J., & Lee, J. J. \(2024\). Do traffic flow states follow Markov properties? A high-order spatiotemporal traffic state reconstruction approach for traffic prediction and imputation. \*Chaos, Solitons, and Fractals\*, 183\(114965\), 11 \(JCR Q1\)](#)  
#3 [J. Hu, J. Bai, J. Yang, and J. Lee, Crash Risk Prediction Using Sparse Collision Data: Causal Inference and Graph Convolutional Networks Approaches. Available at SSRN: <https://ssrn.com/abstract=4558734> or <http://dx.doi.org/10.2139/ssrn.4558734>. \(Under second review in \*Expert Systems with Applications\*; JCR Q1 \)](#)  
#2 [J. Hu, Zhang, J. Bai, and J. Lee, Unraveling the Dynamic Rules of Urban Traffic Crashes: Tucker-Net Based SIRS Model. Available at SSRN: <https://ssrn.com/abstract=4697054> or <http://dx.doi.org/10.2139/ssrn.4697054>.\(Under first review in \*Journal of Transport Geography\*;JCR Q1 \)](#)  
#1 [Yang, J., Lee, J., Mao, S., & Hu, J. \(2024\). Dynamic safety estimation of airport pick-up area based on video trajectory data. \*IEEE Transactions on Intelligent Transportation Systems: A Publication of the IEEE Intelligent Transportation Systems Council\*, 25\(2\), 1774 – 1786. <https://doi.org/10.1109/tits.2023.3316199>. \(JCR Q1\)](#)

## EXPERTISE

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Programming Language: Proficient in: Python; Familiar with: Matlab, SPSS, Latex.

Software: SPSS, GIS tools, Auto CAD, Mendeley.

Languages: English, Chinese.