Meng Guo

School of Transportation, Southeast University

0009-0003-3506-0636

guomeng@seu.edu.cn

Education

Southeast University Sep 2021-Jul 2024 (Expected)

Master in Transportation Engineering, School of Transportation Nanjing, China

- **Supervisors:** Gang Ren, Chenyang Wu
- **Average Score:** 89.1/100
- **Highlight Courses:** Traffic engineering theory (95), Traffic planning theories and methods (88), Data mining for transportation (94), Data analysis and modeling (82)

Southeast University Sep 2017-Jun 2021

Bachelor in Traffic Engineering, School of Transportation Nanjing, China

- **Average Score:** 85.7/100 **GPA:** 3.47/4.00
- **Thesis:** Data Mining and Visualization of Multimodal Public Transport Passenger Flow
- **Highlight Courses:** Transportation planning (91), Traffic design (91), Traffic control and management (86), Transportation economics (85), Road traffic safety (90), Traffic simulation experiment (92)

Research Interests

Areas of Interest: Choice modelling; Optimization; Multimodal transportation system; Mobility service

Master's Thesis: Commuters' dynamic decision-making for multi-modal trips within Mobility-as-a-Service plans

Publications

Journal articles:

Guo, M., Li, Q., Wu, C., Le Vine, S., & Ren, G. (2023). Content analysis of Chinese cities' Five-Year Plan transport policy documents. Case Studies on Transport Policy, 13, 101055. https://doi.org/10.1016/j.cstp.2023.101055

Conference papers:

Guo, M., Li, Q., Wu, C., Le Vine, S., & Ren, G. (2024). Content analysis of Chinese cities' Five-Year Plan transport policy documents. Transportation Research Board.

Guo, M., Wu C., Ren G., Zhang J., & Ma J. (2023). Spatio-temporal analysis of passenger flow based on an interdependent metro-bus network. Proceedings of the 23rd COTA International Conference of Transportation Professionals, 575-584. https://doi.org/10.1061/9780784484869.056

Project Experience

Multimodal Journey Planning under Uncertainties Jan 2022-present

Research Intern, supervised by Prof. Chenyang Wu Nanjing, China

This work is the topic of Master's thesis, and is funded through National Natural Science Foundation of China.

- Analyzed travel patterns using RTS (Residents' Travel Survey) data to design MaaS bundles for different groups.
- Designed a stated preference survey and an economic experiment to collect bundle preference and travel behavior data w/o MaaS (Mobility-as-a-Service) bundles.
- Recruited participants online to obtain the impact of uncertain trips and MaaS bundles on the mode choice of each journey.
- Introduced a dynamic discrete choice model framework to calibrate the discounting factor and risk attitude of travelers' decisions.

Visualization and Analysis of Passenger Flow on Multimodal Public Transport Network Apr 2021-Jan 2023

Research Intern, supervised by Prof. Gang Ren Nanjing, China

This work resulted in a poster presentation and a publication in ASCE CICTP2023 proceedings.

- Estimated cross-sectional and OD passenger flows of a bimodal metro-bus network from multi-source data (smart card data, GPS data, etc.).
- Constructed an interdependent metro-bus network, and developed an interactive visualization framework to display passenger flows in the network.
- Conducted a case study in Nanjing to analyze the spatio-temporal associations of interdependent networks.

Working Experience

Southeast University Sep 2021-Jan 2023

Teaching assistant of *Traffic Simulation Experiment* and *Writing in Science* Nanjing, China

- Collected traffic data and designed experiment assignments, answered student inquiries about traffic simulation.
- Reviewed academic writing materials, provided feedback on students' manuscripts and literature presentations.
- Collected, organized, and graded assignments, managed the progress of online courses and learning activities.

Nanjing Institute of City & Transport Planning Co., Ltd. Jun 2021-Jul 2021

Intern of Transportation Planning Department No. 3 Nanjing, China

- Participated in the revision of *The Standard and Guideline for the Parking Facilities of Buildings in Nanjing City.* Mainly responsible for: using entropy weight method and nested logit model to estimate parking demand for different metro stations.

Honors & Awards

Master's Academic Scholarship, Southeast University	Oct 2023
2^{nd} Class Academic Scholarship, Southeast University	Oct 2022
Advanced Graduate Student in Sports and Aesthetics, Southeast University	Oct 2022
2^{nd} Prize in National Competition of Transport Science and Technology for Students	Jul 2022
Advanced Graduate Student, School of Transportation, Southeast University	May 2022
3^{rd} Class Academic Scholarship, Southeast University	Oct 2021

Skills

Language: IELTS 6.5 (L: 6.5, R: 7.5, W: 6.5, S: 6)

Programming: Python (Biogeme, SciPy, scikit-learn, numpy, pandas), R, HTML, CSS, JavaScript

Software: Qualtrics, Ztree, SPSS, STATA