

SHEN YIFAN

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EDUCATION

Shanghai Jiao Tong University (SJTU) Sep. 2019 – Jun. 2022 (Expected)

- *Master of Engineering* in Logistics Engineering
- **GPA:** 3.95/4.0 (ranking: 1st in the class); **Scholarship:** National Scholarship
- **Advisor:** Prof. Jun Xia

Shanghai Jiao Tong University Sep. 2015 – Jun. 2019

- *Bachelor of Engineering* in Transportation (International Shipping)
- **GPA:** 85.84/100 (ranking: 8th in the class); **Honor:** Graduate with Distinction
- **Advisor:** Prof. Jiangang Jin

PUBLICATIONS

- **Optimizing Underground Shelter Location and Mass Pedestrian Evacuation in Urban Community Areas: A Case Study of Shanghai** (2021).
Jian Gang Jin, Yifan Shen, Hao Hu, Yiqun Fan, & Mingjian Yu.
Transportation Research: Part A. (SCI Impact Factor: 5.594)
DOI: 10.1016/j.tra.2021.04.009 [[Article Here](#)]
- **Safety and Efficiency Analysis of Turbo Roundabout with Simulations Based on the Lujiiazui Roundabout in Shanghai** (2020).
Qiujia Liu, Jiali Deng, Yifan Shen, Wenxin Wang, Zhan Zhang, & Linjun Lu.
Sustainability. (SCI Impact Factor: 3.251)
DOI: 10.3390/su12187479 [[Article Here](#)]
- **Understanding the bike sharing travel demand and cycle lane network: The case of Shanghai** (2019).
Dingyi Zhuang, Jian Gang Jin, Yifan Shen, & Wei Jiang.
International Journal of Sustainable Transportation. (SSCI Impact Factor: 3.929)
DOI: 10.1080/15568318.2019.1699209 [[Article Here](#)]

SELECTED HONORS AND AWARDS

- National Scholarship (the only awardee of the class, 0.2% of the country) 2020
- First Class Scholarship, SJTU 2020
- Outstanding Student Leader, SJTU 2020/2016
- Graduate with Distinction, SJTU 2019
- *Grand Prize (Top 8 of 8000+ teams)*, “Zhixing Cup” Shanghai University Students Social Practice Project Competition 2019
- *1st Prize (Top 3 of 10 teams)*, “Siyuan Cup” Competition of Transport Science and Technology 2018
- *1st Prize (Top 21 of 3000+ teams)*, “Zhixing Cup” Shanghai University Students Social Practice Project Competition 2017

INTERNATIONAL CONFERENCE PRESENTATIONS

Intermodal Container Routing Optimization with Service Requirements

- The 10th International Conference on Logistics and Maritime Systems, Oct. 2021
- The 22nd Conference of the International Federation of Operations Research Societies, Aug. 2021

LANGUAGES AND SKILLS

- **Languages:** English, Mandarin
- **Programming Languages:** Python, R, L^AT_EX, Matlab
- **Research Software:** CPLEX, Gurobi, Arena, TransCAD, ArcGIS, PTV VISSIM

RESEARCH EXPERIENCE

Research on Intermodal Container Routing Problem *Sep. 2020 – Present*
Research Assistant, Sino-US Global Logistics Institute (Advisor: Prof. Jun Xia) Shanghai, China

- Formulated the intermodal container routing problem considering practical service requirements as network flow models, and solved it under a Benders Decomposition framework with Column Generation
- Developed speed-up techniques: Pareto-optimal cuts for degeneration, Farkas pricing for infeasibility of Benders Subproblems, and rounding heuristics for good initial solutions
- Conducted computational experiments to prove the effectiveness and efficiency of the speed-up techniques in all scales of instances

Research on Emergency Shelter location & Pedestrian Evacuation *Sep. 2018 – Feb. 2020*
Research Assistant, Department of Transportation (Advisor: Prof. Jiangang Jin) Shanghai, China

- Formulated the problem of location selection of underground emergency shelters and pedestrian evacuation as a network flow model, and solved it with a minimum-cost-maximum-flow solution algorithm designed based on Busacker-Gowen algorithm
- Identified the bottlenecks of the pedestrian evacuation network, and proposed three recourse measures and testified their effectiveness in improving the utilization of infrastructure

Research on Bike-sharing Data and Riding Patterns *Sep. 2017 – Jul. 2018*
Research Assistant, Department of Transportations (Advisor: Prof. Jiangang Jin) Shanghai, China

- Analyzed the bike-sharing data to identify the gap between the increasing cycling mobility demand and the supply of infrastructure
- Implemented a graphic clustering algorithm to identify typical patterns of cycling in spatial and temporal dimensions, and their relationships with geography and Point of Interests data
- Identified factors effecting the construction of cycling infrastructure, and proposed managerial insights for improving the cycle lane network

Research on Traffic Safety and Efficiency of Turbo Roundabouts *Sep. 2017 – Jul. 2018*
Research Assistant, Transportation Research Center (Advisor: Prof. Linjun Lu) Shanghai, China

- Collected traffic data of a typical five-leg roundabout, and simulated the normal roundabout and the novel turbo roundabout with PTV VISSIM
- Analyzed the safety and efficiency improvement of turbo roundabouts with proposed evaluation indices under different traffic volumes and turbo radii, and concluded suggestions on roundabout design

WORKING EXPERIENCE

China COSCO SHIPPING Co., Ltd. *Sep. 2020 – Nov. 2021*
Assistant Analyst, Emergency Response Optimization of China-Europe Land-sea Express China

- Modelled the problems of cargo routing decision, railway line planning and emergency response plan for the intermodal container transportation service and designed algorithms to solve them

Annto Logistics Co., Ltd., Midea Group *Mar. 2021 – Aug. 2021*
Assistant Analyst, Intelligent Delivery Scheduling System Design & Cost-benefit Analysis China

- Analyzed the pain points of to-business delivery by fieldwork, surveys and freight rate data analysis
- Modelled the to-business delivery as a VRP with practical concerns, and solved it based on Clarke-Wright Savings Algorithm

LEADERSHIPS IN EXTRACURRICULAR ACTIVITIES

- Chairman, Graduate Student Union, Sino-US Global Logistics Institute *Sep. 2020 – Sep. 2021*
(Awardee of Outstanding Student Leader of SJTU)
- Editor-in-chief, NAOCER Studio (official school media platform) *Sep. 2016 – Sep. 2018*
(Awardee of Outstanding Student Leader of SJTU)
- Team Leader, “Siyuan Cup” Competition of Transport Science and Technology *Apr. 2018*
(1st Prize, top 3 out of 10 teams)