

SHEN YIFAN

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EDUCATION

Shanghai Jiao Tong University (SJTU), Shanghai, China *Sep. 2019 – Mar. 2022*

- *Master* in Logistics Engineering
- **GPA: 3.95/4.0 (ranking: 1/16)**

Shanghai Jiao Tong University, Shanghai, China *Sep. 2015 – Jun. 2019*

- *Bachelor* in Transportation Engineering
- **GPA: 3.58/4.3 (ranking: 8/21)**

RESEARCH EXPERIENCE

Sino-US Global Logistics Institute | SJTU *Sep. 2020 – Present*
Assistant researcher *Shanghai, China*

Project: Intermodal Container Routing

- Studied the intermodal container routing problem considering three practical service requirements.
- Designed a network flow model and constructed an MILP problem.
- Solved the problem with Benders Decomposition and Column Generation algorithms using CPLEX solver and Python.
- Conducted computational experiments to prove the effectiveness and efficiency of the method.

School of Naval Architecture, Ocean & Civil Engineering | SJTU *Sep. 2017 – Jun. 2019*
Assistant researcher *Shanghai, China*

Project 1: Emergency Planning (shelter location & pedestrian evacuation)

- Studied the problem of location selection of underground emergency shelters in urban community areas and pedestrian evacuation planning in emergency.
- Designed a network flow model and developed a minimum-cost-maximum-flow solution algorithm.
- Conducted a real-world case study in Shanghai and proposed managerial insights.

Project 2: Bike-sharing analysis

- Analyzed the bike-sharing data to identify typical patterns of cycling in spatial and temporal dimensions.
- Assisted with implementing a graphic clustering algorithm to investigate the bike-sharing system.

Transportation Research Center | SJTU *Sep. 2017 – Jun. 2018*
Assistant researcher *Shanghai, China*

Project: Traffic Safety of Roundabouts

- Collected the traffic data of a typical five-leg roundabout in the field.
- Used PTV VISSIM to simulate the normal roundabout and the novel turbo roundabout.
- Used SSAM to analyze and confirm the improvement of turbo roundabouts in safety performance.

PUBLICATIONS

Published Papers

1. **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, 149, 124-138.
2. **Safety and Efficiency Analysis of Turbo Roundabout with Simulations Based on the Lujiazui Roundabout in Shanghai** (2020).
Qiuqia Liu, Jiali Deng, Yifan Shen, Wenxin Wang, Zhan Zhang, & Linjun Lu.
Sustainability, 12(18), 7479.
3. **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, 1-13.

Working Papers

1. **Intermodal Container Routing Optimization with Service Requirements** (2021).
Yifan Shen, Jun Xia.

PRESENTATIONS

“Intermodal Container Routing Optimization with Service Requirements”

- INFORS 2021 (The 22nd Conference of the International Federation of Operations Research Societies), online, Aug. 2021

PROFESSIONAL EXPERIENCE

Annto Logistics Co., Ltd., Media Group

Mar. 2021 – Present

Project team member

China

- Sorted out the business process of delivery and analyzed the practical requirements of the company by fieldwork and surveys.
- Analyzed the freight rate system of the company with real history data and Pandas in Python and proposed fleet design recommendations to reduce cost.
- Model the delivery problem as a VRP and solve it based on Clarke-Wright Savings Algorithm.

China COSCO SHIPPING Co., Ltd.

Sep. 2020 – Present

Project team member

China

- Analyzed the operation of China-Europe Land-sea Express.
- Provided the cargo routing decision, railway line planning and emergency response plan for the service with mathematical models and real data.
- Analyzed existing performance indicators of container operations and proposed new ones.

Hellobike (Alibaba-backed bike-sharing company)

Jul. 2018 – Aug. 2018

Government Affair Internship

Shanghai, China

- Collected and updated governmental policy information on bike-sharing.
- Connected with 5 major regions of China for government relations management.

SKILLS AND LANGUAGE

- **Languages:** English (fluent) (TOEFL 96/120, GRE 320 + 4.0); Mandarin (native)
- **Programming Languages:** Python, R, Matlab
- **Softwares:** CPLEX, Gurobi, Arena, TransCAD, ArcGIS, PTV VISSIM

HONORS AND AWARDS

Honors:

- First Class Scholarship | *SJTU* 2021/2020
- National Scholarship (0.2%) | *Chinese government* 2020
- Excellent Student Cadre | *SJTU* 2020/2016
- Outstanding Graduate | *SJTU* 2019
- Academic Excellence Scholarship | *SJTU* 2018/2017/2016
- Excellent League Cadre | *SJTU* 2017

Awards:

- 3rd Prize, SF Logistics Competition | *S.F. Express Co., Ltd.* 2020
- Grand Prize, “Zhixing Cup” Shanghai Social Practice Project Competition | *Shanghai, China* 2019
- 1st Prize, “Siyuan Cup” Competition of Transport Science and Technology | *SJTU* 2018
- 1st Prize, “Zhixing Cup” Shanghai Social Practice Project Competition | *Shanghai, China* 2017

EXTRACURRICULAR ACTIVITIES

- Chairman, Graduate Student Union, Sino-US Global Logistics Institute, SJTU Sep. 2020 – Sep. 2021
- Editor-in-chief, NAOCER Studio (official school media platform), SJTU Sep. 2016 - Sep. 2018