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Education

Ph.D candidate of System science

Beijing Jiaotong University September 2019 – June 2024 (expected)

Thesis:Driver-passenger matching and vehicle repositioning optimization in the Ride-sourcing market

Visiting student in Transportation Planning

Hiroshima University

Visiting Ph.D program

Ph.D's degree program

May 2022 – June 2023

Lab: Mobilities and Urban Policy Co-supervisor: Junyi ZHANG

Master of Transportation Planning and Management

Beijing Jiaotong University

Master's degree program

September 2018 – June 2019 (continued as Ph.D candidate)

Major: Transportation Planning and Management

Bachelor of Traffic Engineering

Qingdao University of Technology

Bachelor's degree program September 2014 – June 2018

Major: Traffic Engineering Final grade: 5/69

Accepted papers

Reassignment Algorithm of the Ride-Sourcing Market Based on Reinforcement Learning

2023

First author

IEEE Transactions on Intelligent Transportation Systems

DOI: 10.1109/TITS.2023.3274636.

Order dispatching optimization in ride-sourcing market by considering cross service modes

2023

2024

First author

Journal of Central South University

DOI: 10.1007/s11771-022-5193-4.

Promoting collaborative dispatching in the ride-sourcing market with a third-party integrator

First author

IEEE Transactions on Intelligent Transportation Systems

State: Accept.

Under review papers

Reinforcement learning-based order-dispatching optimization in ride-sourcing service

2023

First author

Computers and Industrial Engineering

State: Second round review.

Research project

Management optimization and intelligent service of car-sharing travel under big data environment 2020

Key student participants

National Natural Science Foundation of China

- Coordinate the development of the data analysis platform, coordinate the design requirements of functional modules, and coordinate the formulation of data interface specifications.
- Design platform UI and back-end API, write front-end visualization and back-end algorithm and analysis code, write development documents

Future Urban Transportation Management

2023

Key student participants

National Natural Science Foundation of China

• Write a deduction and simulation platform for online travel system under emergency and road control

Research on matching algorithm of ride-sourcing considering individual heterogeneity

2021

Principal Investigator

Beijing Jiaotong Univeristy Fund for Student

• Formulate the simulation technology route of combining reinforcement learning and individual behavior model

Personal projects

Sharing Mobility Analysis, Regulation and Track (SMART) platform

2022

Simulation and Track Platform

Developer

A platform that integrates ride-sourcing, shared car and shared bicycle order data, trajectory data analysis, mining and visualization, travel demand forecasting, etc.

RideSourcingEmergency

2023

Simulation and Track Platform

Developer

Deduction and simulation platform for ride-sourcing system under emergencies and road control.

RideSourcingGym

2023

Simulation, Training and Test Environment

Developer

A simulation environment for the ride-sourcing system that supports reinforcement learning-based dispatching algorithms, reposition algorithms, and space-time pricing algorithms.

Technical skills

Deep Learning Pytorch, Gym, Stable-baselines3

Data Science Pandas, Numpy, Scipy, Scikit-learn, Spark

Operations Research cplex DOcplex

Visualization Matplotlib, Echarts, seaborn, leaflet, Mapboxgl

Web Development Django, JavaScript, React, Django REST Framework, Axios, Antdesign

Awards

National Second Prize
National Third Prize
First Prize

the Second Digital China Innovation Competition Mathematical Contest in Modeling for Chinese Graduate Students

2022 2019

Beijing Jiaotong University Doctoral Scholarship

2019,2020, 2021

Work experiences

Assistant engineer

Traffic Information Center

Beijing Transportation Commission 2019.03-2019.06

Formulate the "Specifications for Labeling Text Information of Transportation Video Images"