Xiaofei Yu

Intentional position: **Machine Learning Intern (Available after 2022.01)**

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Education

Beihang University (BUAA) **Sep. 2020 – Jan. 2023**

Master of Transportation Engineering *China, Beijing*

Dalian Maritime University (DMU) **Sep. 2016 – June. 2020**

Bachelor of Nautical Science ***(Elite Class)*** *China, Dalian*

Honors: **Outstanding Graduate in Dalian**

Relevant Coursework

- Data Structures and Algorithms
- Transportation big data
- Traffic Data Modeling and analysis
- Data analysis and mining
- Mathematical Statistics
- Complex function

Projects

Research on Dynamic Judgment and Countermeasures of Public Traffic in Chongqing | ***Core member***

Core Member of the team, Alibaba Gaode AMAP Project Cooperative Intern **April 2021**

- Cooperate with Gaode Map,define the necessary indicators and participate in the development of the **project outline.**
- Working in Gaode Map and Chongqing Urban Transport Investment and Development Group to process and visualize route basic data and massive commute positioning data with **Python** and **QGIS**.
- Large-scale data analysis of public transportation, residents' commuting and travel experience in Chongqing area.
- **Propose suggestions** for traffic route optimization in Chongqing,some of the recommendations have been **implemented** and **achieved significant results**,which is popular among residents.

Visualization platform construction of bus line network | ***Person In Charge*** **March 2021**

- Independently design and build the front-end interface of the bus visualization system, the technology stack includes **javascript, html, CSS** , and the framework **Vue** is used. Website1
- Call the Gaode api to visualize the designated bus route map and distinguish the original route map between the upstream and the downstream, draw the optimized route through the optimized POI coordinate points, and compare the routes and indicators before and after the optimization to show the effect of the optimized route.
- Design and build a traffic road network situation detection and analysis system to visually display road accidents in Beijing for a year,and display the ranking of accident impacts and detailed accident information. Website2

"Huawei Cup" Graduate Mathematical Modeling Contest | ***Team Leader*** **October 2021**

- The selected research question is the airline crew scheduling problem, and the combination and optimization of the airline staff scheduling to realize the efficient allocation of resources. A multi-objective optimization function is constructed by linear weighting method, a mixed integer programming model is constructed to accurately describe the problem
- By constructing a heuristic algorithm framework, an innovative idea of "unmarshalling and marshalling" based on taboo rules is proposed, which is highly adaptable and popular. Paper

Publications

Evaluating and Predicting road network resilience using traffic speed and log data | ***First Author***

The 22nd COTA International Conference of Transportation Professionals **(EI)**

Honors

- National College Student Mathematics Competition,**First Prize of Liaoning Province** 2018
- National College Students Mathematical Contest in Modeling,**Second Prize of Liaoning Province** 2018
- National College Student Mathematics Competition,**National Third Prize** 2018
- Innovation and Entrepreneurship Project honor,**National level** 2018

Skills

- Familiar with **various algorithms** of machine learning and **mathematical derivation** process,familiar with its related operations in **data mining and analysis**.
- Familiar with and master the **Python** language and its related **data structure and algorithm** related fields. Familiar with deep learning frameworks such as **PyTorch**.
- Familiar with the **basic principles and design of database** and simple use of **SQL** language.