

Model to Predict Passenger Transport Demand Based on RNN

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Abstract: *Particularly in urban areas, taxis are an essential part of mobility. Predicting future demand for taxis in a specific area will be very beneficial to internet-based transportation companies like Ola, Uber, and others so that we can significantly reduce customer/passenger waiting times and help taxi drivers to move to specific areas where demand is high, ultimately making passengers, drivers, and companies happy. We like to forecast the demand for taxis in a certain place for the proposed project.*

Keywords: Taxi Demand Prediction, Recurrent Neural Network

REFERENCES

- [1]. Fei Miao, Shuo Han, Shan Lin, Qian Wang, John A. Stankovic, Abdeltawab Hendawi, Desheng Zhang, Tian He and George J. Pappas, "Data-Driven Robust Taxi Dispatch Under Demand Uncertainties", IEEE Transactions on Control Systems Technology, , Jan.2019.
- [2]. Jun Xu , Rouhollah Rahmatizadeh, Ladislau Bölöni, and Damla Turgut, "Real-Time Prediction of Taxi Demand Using Recurrent Neural Networks", IEEE Transaction on Intelligent transport system, vol. 19, no. 8, pp. 2572-2581, Aug.2018.
- [3]. Mohammad Saiedur Rahaman, Yongli Ren, Margaret Hamilton and Flora D. Salim, "Wait Time Prediction for Airport Taxis Using Weighted Nearest Neighbor Regression", IEEE Access, vol. 6, pp. 74660 - 74672, Nov.2018.
- [4]. Desheng Zhang, Tian He, Shan Lin, Sirajum Munir and John A. Stankovic, "Taxi-Passenger-Demand Modeling Based on Big Data from a Roving Sensor Network", IEEE Transactions on Big Data, vol. 3, no. 3, pp. 362 - 374, Sept.2017.
- [5]. Biao Leng, Heng Du, Jianyuan Wang, Li Li and Zhang Xiong, "Analysis of Taxi Drivers' Behaviors Within a Battle Between Two Taxi Apps", IEEE Transactions on Intelligent Transportation Systems, vol. 17, no. 1, pp. 296 - 300, Jan.2016.
- [6]. Fei Miao, Student Member, Shuo Han, Member, Shan Lin, John A. Stankovic, Desheng Zhang, Sirajum Munir, Hua Huang, Tian He, and George J. Pappas, "Taxi Dispatch With Real-Time Sensing Data in Metropolitan Areas: A Receding Horizon Control Approach", IEEE Transactions on Automation Science and Engineering, vol. 13, no. 2, pp. 463 - 478, Mar.2016.