Continue building the public transport optimization

Model

1. Devise features -- examine a lot of data, analyze feature engineering on other problems and figure out what to use from them.

2. In contrast, during model optimization, you either increase or decrease depth and width depending on your goals. If your model quality is adequate, then try reducing overfitting and training time by decreasing depth and width.

3. Feature engineering in Machine learning consists of mainly 5 processes: Feature Creation, Feature Transformation, Feature Extraction, Feature Selection, and Feature Scaling. It is an iterative process that requires experimentation and testing to find the best combination of features for a given problem

4. Such solutions hold great potential to improve the efficiency of public transit systems through initiatives such as smart-ticketing, one nation-one card, security surveillance, fleet management, traffic management and real-time passenger information among others.

5. Advantages of optimisation methods include the reduction of costs of transport charges, storage or production processes. Besides an economic merit of the optimisation process there also increases the efficiency of time needed for logistic operations execution.

6. machine learning, feature importance scores are used to determine the relative importance of each feature in a dataset when building a predictive model. These scores are calculated using a variety of techniques, such as decision trees, random forests, linear models, and neural networks.

7. The Google Cloud Fleet Routing API is an example of an AI-based route optimization tool. It considers traffic patterns, delivery times, and other factors to create an efficient route for a particular delivery or field call.

8. Route optimization software help identify the most cost-effective routes. A study suggests that taking the optimized route can reduce fuel costs by up to 30%. A major focus of route optimization software is to help reduce the time spent by vehicles on the road.

9. IP routing is the process that defines the shortest path through which data travels to reach from source to destination. It determines the shortest path to send the data from one computer to another computer in the same or different network.

10. Calculate transport times and distances between all involved locations, e.g. pickup and delivery locations, as well as vehicle start locations.