Aushang bis zum
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TECHNISCHE UNIVERSITÄT DARMSTADT

FSR

Bachelor/Masterthesis

Objective Catering Passenger Behavioral Analytics

Airline catering, which includes food and beverage (F&B) services, plays a crucial role in shaping the passenger experience. Many travelers discuss the quality of the onboard F&B services. Excessive catering can result in significant waste, while insufficient catering can lead to unhappy passengers. According to IATA estimates, between $2 billion and $3 billion worth of F&B items are wasted each year. Moreover, the weight of unused F&B items contributes to unnecessary fuel consumption.

To address this issue, solutions can be found in determining optimal catering levels for every flight. The primary challenge is to gather objective data or develop a reliable model. Various concepts exist for collecting data on individual pre-, in-, or post-flight orders, utilizing behavioral analytics, or employing generic route modeling.

In this thesis:

The aim of this thesis is to predict an individuals future ordering based on their personal historical behavior that has been logged in a database. This Machine Learning (ML) model shall use available world-wide B787 synthetic data, augment the data, and train an ML algorithm. With the remaining data the objective is to determine prediction quality. In a second step, an inflight ordering/recording iPhone app for passenger and flight attendants shall be built to demonstrate how the data could be collected. The app will be integrated into the TU-Darmstadt cabin simulator software environment.

Source:https://stock.adobe.com/

Organizational:

start immdiately

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