MAJOR AIRLINE PREDICTS DEMAND MORE ACCURATELY
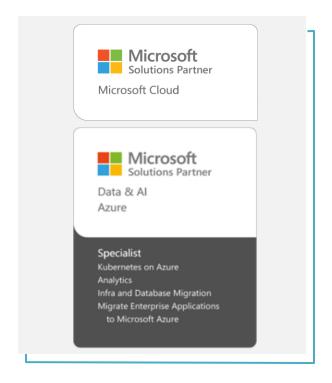
REPLY
VALOREM

A major American airline had customer satisfaction issues due to menu option availability on flights. They were unable to accurately predict the demand for certain meals, leaving them with an excess of some and a shortage of others. Based on previous work with the airline, Valorem Reply had insight into the issue and recommendations to address the allocation problem. In this 5-week project, the airline was provided with predicted catering demand by flight. Our model provides the ability to pull demand manually and produce a daily flight demand matrix to provide catering in advance. The solution is based on a machine learning model produced in Azure ML which is connected to a new table in Azure SQL DB and runs on the airline's Azure tenant, providing them with access to both the model and the API.

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VALOREM REPLY BUILDS A MODERN DATA ESTATE FOR MAJOR AIRLINE WITH AZURE.

Customer Challenges

- Need to maximize catering revenue and minimize waste

- Customer satisfaction issues due to menu option availability

- Improve ground operations and in-flight efficiencies

Partner Solution

- Azure Machine Learning

- Databricks Engineering Modules

- Build/refine iterative predictive model

- Additional variables included in model to include routes, time-of-day, seat configuration, historic load factors

Customer Benefits

- Catering team can more accurately predict demand for high margin menu items

- Decreased costs in waste

- Increased revenue forecasting

- Extensible model now available for other in-flight menu items

- Seamless integration with existing reporting platform