Modernization & Cloud Migration of On-Premise ML Models with Integrated MLOps for Leading Canada-Based Humanitarian Aid Organization

Client

The customer is one of the leading humanitarian aid organizations in Canada. It's one of the biggest food charities helping those at risk of starvation and malnutrition, especially in fragile communities, along with disaster relief charity.

Challenges

The customer was navigating through the stream of cloud-based data modernization. It wanted to expedite the process of moving the existing workloads and models from the on-premise platform. But it faced multiple issues around:

- Lack of scalability for the existing market segmentation model resulting in limited insights.

- Transformation of the existing on-premise SQL data engineering efforts of respective models into the Snowflake cloud data platform.

- Intense manual effort in managing and maintaining the model operations with limited automation.

LTIMindtree Solution

LTIMindtree helped the customer invigorate the process of managing the existing models and their operations by leveraging the in-built utilities of our MLOps accelerator. This helped automate the process of operationalizing the models at scale. We further helped:

- Build a new transformation pipeline using SnowPark on Snowflake, along with transforming the existing scoring pipeline to Azure ML.

- Operationalize the ML models by automating the training, inference, and drift pipeline along with the integration of Azure DevOps scripts.

- Enable model monitoring pipeline along with auto alert triggering based on the drift score.

- Reduce the manual effort of updating the census data by creating an automated data refresh pipeline.

Business Benefits

~40% reduction in manual effort of building the training and scoring pipeline

~50% TAT improvement by automating the ML lifecycle process

2x richer personalized experience by enabling drift pipeline to track model performance

LTIMindtree

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