

A leading medical equipment and medical supply organization, leverage WinWire's MLOps services and Databricks to automate the end-to-end ML lifecycle and save man-hours of the data science team.



Background

The customer is a leading medical equipment and medical supply organization that connects skilled healthcare professionals and healthcare facilities globally.

Business Challenge

The emerging age of the connected, digital world means tons of data distributed across the organization in varied applications. To harness that data, the customer has created a data science unit whose charter is to harness the value from data for **improving business performance, customer satisfaction, medical staff satisfaction, and profitability.**

An application to submit open contracts (temporary positions) with travelers is now assisted by a **machine learning model** to improve decision-making and thus improve productivity.

The customer wanted to create a secure, internal ML platform-based solution on open-source technologies and support their data science teams to leverage data efficiently. The ML platforms objective is to speed up their experiments and create a technical environment to that can be shared across the organization.

Key challenges:

- Implementation of the ML use case is done on individual personal machines
- There isn't a scope for collaboration between the development teams
- Lack of scalable ML environment limited amount of data that can be used for training
- Varied toolsets, libraries and languages were in use for model development
- No process defined for Model packaging, model deployment, model re-training
- Manual interventions in model monitoring

WinWire Solution

WinWire team aligned with the customer Data Science team and ensured they are onboarded to the MLOps process and its value. They looked for a highly flexible collaboration model and rapid development, which the WinWire team delivered.

WinWire created a technical environment that supports collaboration and communication between data engineers, data scientists, and operations professionals to manage machine ML lifecycle in production. Designed automation for end-to-end model management and monitoring to improve the quality of production ML models.

Migrated the existing prediction ML application based on Python from its current environment to the newly designed and built **MLOps on Azure**, using **Databricks** and **MLFlow**.

Approach:

- Aligning with customer's Data Science Teams
- Design an MLOps architecture based on best practices of Databricks and Azure
- Implementation of a framework based MLOps Solution with reusable code templates

Business Value

- Reproducible framework for managing end to end ML lifecycle
- Automated model deployment and inferencing, eliminated 5-person month of effort
- Robust environment and standardized process for rapid ML experimentation