

# MLOps implementation for a major North American water bottling company

## CHALLENGES

A major North American water bottling company often receives bids to deliver their products from shipping carriers via a spot market. Neal Analytics developed and trained a spot-bidding Machine Learning (ML) model that could measure different shipping variables such as mileage, routes, lead times, fuel costs, etc. However, the model was running separately as a pilot, and there was no formal process for deploying it into production.

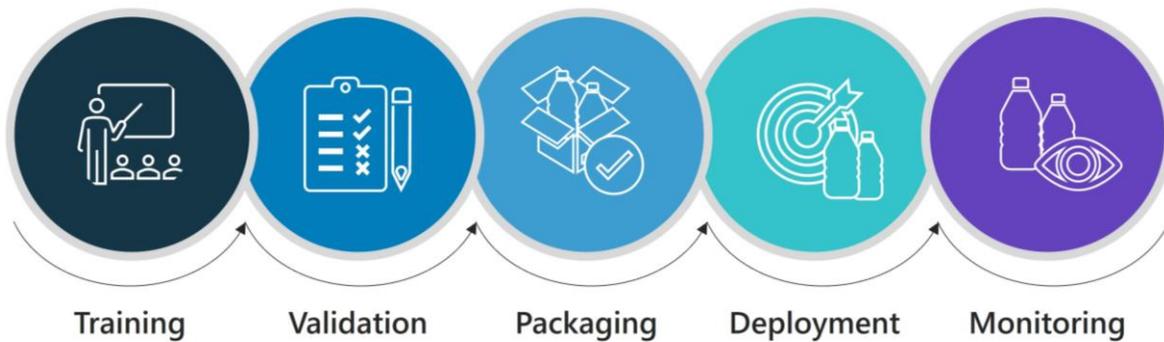
The customer wanted to manage the ML model in such a way that they could handle various iterations as they refine it over time.

Finally, they wanted to implement data science and MLOps capabilities to standardize model governance and scale their analytics capabilities.

## SOLUTIONS

Neal developed a flexible MLOps infrastructure to support the customer's spot-bid model and future ML models.

The methodology included a process for streamlining model training, packaging, validation, deployment, and monitoring.



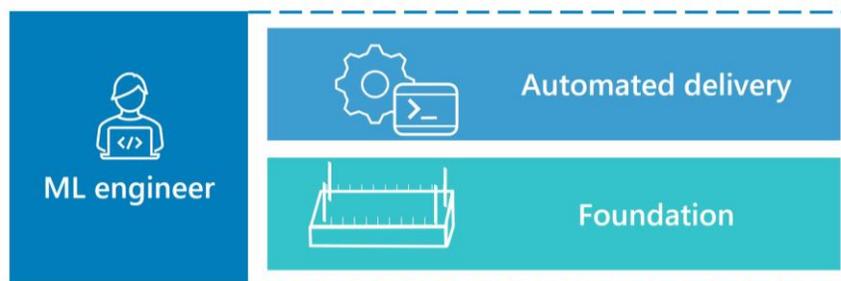
This helped ensure all ML projects would run consistently from end to end.

To support this approach, Neal implemented MLOps on Azure Databricks and automated the CI/CD pipelines with Azure DevOps.

Finally, Neal worked with the customer's engineering teams to integrate the ML model recommendations into their existing workflows to ensure its outcomes would be seamlessly integrated into existing business processes.

## RESULTS

Neal helped the customer build a foundation for MLOps that supports current and future ML model needs.



The solution resulted in the automated delivery of model recommendations that were integrated with the customer's existing enterprise systems.

The MLOps implementation also introduced the new role of ML engineers in the customer's organization. This engineer coordinates activities between the business and IT teams.