

A vertical photograph of an oil pumpjack (jack-o'-lantern) against a clear blue sky. The structure is made of dark metal and includes a ladder. The pumpjack is the central focus of the image, which occupies the left side of the page.

# Oil & gas service provider: Tank level forecasting

## CHALLENGES

The customer, an oil and gas service provider, was facing inefficiencies in device maintenance and operational planning due to inaccurate tank levels. They needed more accurate forecasts to minimize leaks, spillage, and downtimes. They also wanted to identify equipment failure and maintenance issues before shutdowns.

## SOLUTIONS

Neal Analytics helped the customer built a predictive model to forecast tank levels using onsite sensor reading and historical data. We leveraged tank forecasts to schedule tank pickups and minimized downtime at the site.

We also leveraged Azure Machine Learning for rapid parallel model testing and development. We tested different advanced machine learning algorithms (Neural Network Regression, Poisson Regression, Decision Forest Regression), which enabled accurate predictions for the customer.

We built Power BI dashboards on PCs and mobile devices to monitor oil wells and other assets in the field. Based on the acquired data, the system would generate real-time alerts for the customer.



## RESULTS

The Power BI dashboard helped the customer analyze field assets, plan activities, and monitor failures. Neal's solution minimized the time required to resolve maintenance issues across devices. The customer could schedule jobs, trucks, and maintenance optimally, which helped further reduce costs and increase revenue.