

Quality prediction and driver analysis for French fry production



Challenges

- Difficult to track fries back to potatoes
- 21-step manufacturing process with incredible trackability problems
- Management wants to:
 - Understand the factors that drive fry quality
 - Optimize system settings based on potatoes

Solutions

- Pulled data from diverse sensors and created unit traceability across 21-step process using Azure Data Factory
- Enabled real-time Power BI visualization of data for real-time shop-floor decision-making
- Deployed machine learning algorithms to predict fry length and increase batch quality for increased yield

Results

- Utilized machine learning to identify key drivers of fry length which determines how much output is worth
- Increased quality and line yield
- Identified and intercepted quality issues, allowing for higher manufacturing line yield