Less than truckload transportation (LTL) is experiencing pressure in a growing e-commerce retail market - freight shipments are smaller, but more frequent. Thus more tonnage of freight is being routed via LTL.

What attributes have the greatest bearing on the success of an LTL shipment?

Deliverable Objectives:

- Develop an explanatory model that captures significant factors predicting perfect order.

Model Targets:

- OTP = Origin Arrive Date <= Origin Schedule Close Date
- OTD = Destination Arrive Date <= Destination Schedule Close Date
- Perfect Shipment = OTP * OTD

Variables:

- Location, Industry, Carrier, Shipment Type, Miles, Rate, Weight, Volume, Hazmat, Detention, Delivery Charge Accessorial

Methodology & Variables

- Supervised machine learning techniques, including linear regression, logistics regression etc.
- Dimension reduction techniques such as principle component analysis

Expected Contribution

Provide shippers with valuable data to help drive improvement in their LTL sourcing strategy.