# DAT 530 Advanced Statistical Methods

Project Review

**Reviewer:** Brandon Hosley

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#### **Project Title:**

Consumer Behavior Insights for Instacart

## Author(s):

Sunny Lee, Josefa Sullivan, Michael Emmert and Jordan Runge

#### Source:

NYC Data Science Academy.

## The Problem the Author(s) is Trying to Solve in the Project:

To examine online grocer customer's settled and exploratory purchasing habits. The Authors then use the patterns that they discover to build and test a product recommender.

### Machine Learning (ML) Algorithm(s) used:

- XGBoost (eXtreme Gradient Boost)
- K-means followed by Hierarchical Clustering
- Associative Rule Mining

#### A Brief Description of One of the ML Algorithms used:

XGBoost (eXtreme Gradient Boost)

#### Metrics Used to Evaluate the ML Algorithms:

The Author's build and deploy a recommender, but fail to provide any metrics by which to test the efficacy of the recommendations. From the screen captures provided, it is doubtful that the recommendations actually made it to a test group. It may not have been feasible to track which items ultimately end up purchased after recommendation.