Brandon Doucette

Decision Tree and Papa Johns

My Feature for our Group

Feature: Decision Tree

Identified feature: A decision tree.

Feature Discussion:

Elaboration: The decision tree takes in multiple features to analyze and is able to classify a time for estimated time remaining on the order. The implementation must be continuous and use regression.

Feature Context:

Knowledge of overall problem: Papa Johns wants a machine learning algorithm that will classify the database that they have developed to accurately predict the time remaining on orders.
How this feature fits in: Machine learning with a decision tree is a possible implementation to classify Papa Johns database. It fulfills the requirements of the project if correctly implemented with a high accuracy percentage that is acceptable and fast enough to work on a large database.
How this feature compares to the other features: My feature only differs from the other features by model implementation.

- Linear regression
- Decision tree (mine)
- Random forest
- Gradient boosting

Priorities and dependencies of this feature: This feature is dependent on feature selection, problem scaling, complexity issue, and prioritizes the heaviest valued feature. These are weaknesses of the decision tree.
How this feature is important in the context of the project: It is important to be rigorous in testing and not exclude possible models. My work on the decision tree implementation allows for us to either use or cross off the implementation of the decision tree in the final result.