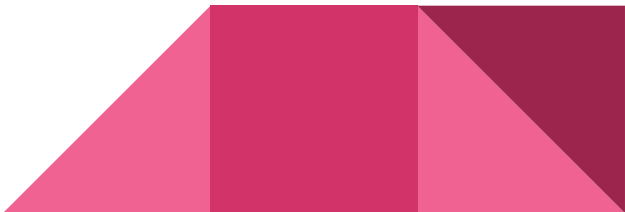# Predicting Sales using Regression Models

By: Francis Q

Data shows us sales by outlet and products

Can we create a model that will predict item sales by outlet given information about the item and store?

I cleaned the data, analyzed the data, and subsequently ran the following regression models:

- ➢ Linear Regression
- ➢ Decision Tree
- ➢ Bagged Regression
- ➢ Random Forest Regression

Applying regression models improves performance

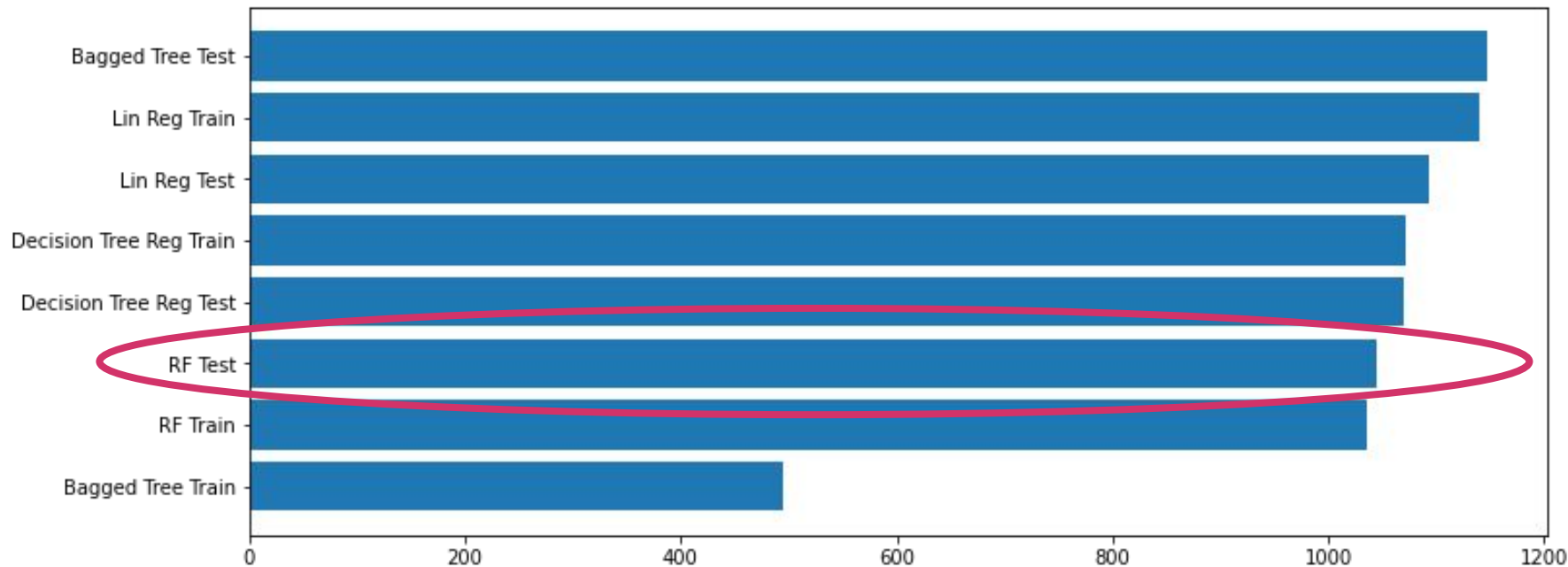Our best performing model is able to explain 60% of target variability

Our simplest linear regression model explains ~52% target variability

Model complexity increased as we applied Tree Regression

- ➢ Decision Tree
- ➢ Bagged Tree
- ➢ Random Forest

Regression Metrics - Model Errors

Regression Metrics - Model Scores (R-squared)