Gala Groceries

Model Building and Interpretation

Building a predictive model and interpreting the results back to the business

Modeling results and models evaluation

2 models were trained as a result of the modeling: Ridge (linear model) and RandomForestRegressor.
Metrics and feature importances are depicted in graphs and in a table.
The result of the linear model and the random forest model showed equal results. For different models, the importance of features also differs, but for both models, the most important feature is the price of a unit.
Any of the models presented can predict inventory levels based on sales data and sensor data on an hourly basis with the specified accuracy.

```
Mean metrics values on cross validate:
Model Ridge:
MAE for train sample - 0.222
MSE for train sample - 0.07
MAE for test sample - 0.223
MSE for test sample -          0.07
------------------------------------------
Mean metrics values on cross validate:
Model RandomForestRegressor:
MAE for train sample - 0.222
MSE for train sample - 0.07
MAE for test sample - 0.223
MSE for test sample -          0.07
------------------------------------------
```
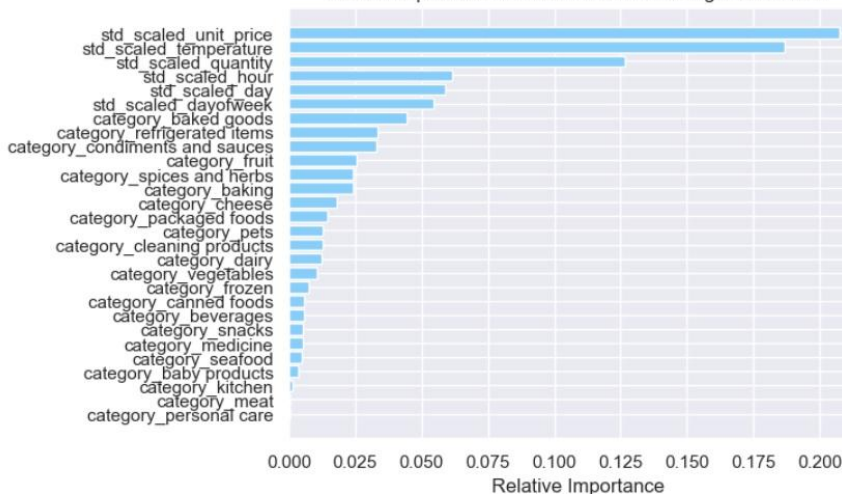

feature Importances for a RandomForestRegressor model

feature Importances for a Ridge model