



Our Eggcellent Solution

Models and Results:

Key insight: people tend not to buy eggs in consecutive weeks

```
# Briar score on the xvalidation
```

```
metrics.brier_score_loss(y_test, logisticpredict)
```

```
0.1475258493353028
```

```
# Baseline predictions
```

```
# Guessing 0 for everything
```

```
baselinepredict = [0 for x in range(0, y_test.shape[0])]
```

```
# Briar score on the xvalidation
```

```
metrics.brier_score_loss(y_test, baselinepredict)
```

```
0.0009231905465288035
```

```
metrics.brier_score_loss(y_test, xgbpredict)
```

```
0.093057607090103397
```

Further Directions

- Additional feature engineering: find out the top 20 products that are bought together with eggs, and more stock of those goods will help
- Parameter tuning
- Other metrics like Precision/Recall that are less sensitive to data skew