**Machine Learning: Predicting Price Change**

| Model Type | | Train Accuracy | Test Accuracy |
| --- | --- | --- | --- |
| Gaussian Naïve Bayes Classification | *Feature Selection from* All Themes+SOURCE [Selected: ECON,ENV,LEAD,SOURCE] | 0.8235 | 0.8667 |
| *Feature Selection from* 1W\_AVG+All Themes+SOURCE [Selected: 1W\_AVG,ECON, ENV,LEAD,SOURCE] | 0.7941 | 0.8667 |
| ECON+LEAD+SOURCE | 0.8382 | 0.8333 |
| **SOURCE** | 0.8529 | 0.8000 |
| **All Themes+SOURCE** | 0.8235 | 0.8000 |
| ***Feature Selection from* All Themes [Selected: ECON,ENV,LEAD,SOC]** | 0.7206 | 0.7333 |
| **ENV** | 0.6324 | 0.7333 |
| **All Themes** | 0.7500 | 0.6667 |
| **ECON** | 0.7647 | 0.6667 |
| **1W\_AVG** | 0.5882 | 0.6333 |
| **LEAD** | 0.6471 | 0.5667 |
| **1W\_AVG+All Themes except ENV** | 0.6765 | 0.5667 |
| **LEGAL** | 0.6176 | 0.5333 |
| **SOC** | 0.6765 | 0.4667 |
| Bayesian Ridge Regression | **1W\_AVG** | 0.1991 | 0.1436 |
| ***Feature Selection from* All Themes [Selected: ECON,ENV,LEAD,SOC]** | 0.2090 | 0.1317 |
| **All Theme** | 0.2369 | 0.1169 |

\*Feature selection selects top features