|  |  |
| --- | --- |
| **Model & Feature Extractors** | **Accuracy** |
| CountVectorizer()  TfidfTransformer()  MultinomialNB() | 0.8435 |
| CountVectorizer()  TfidfTransformer()  SGDClassifier(loss='hinge', penalty='l2', alpha=1e-3, random\_state=42, max\_iter=5, tol=None) | 0.8531 |
| CountVectorizer()  TfidfTransformer()  LogisticRegression() | 0.8435 |
| CountVectorizer()  TfidfTransformer()  DecisionTreeClassifier() | 0.6599 |
| CountVectorizer()  TfidfTransformer()  MultinomialNB()  Best parameters set:  clf\_\_alpha: 0.001  tfidf\_\_norm: 'l1'  tfidf\_\_sublinear\_tf: True  tfidf\_\_use\_idf: False | 0.910 |
| CountVectorizer()  TfidfTransformer()  SGDClassifier()  Best parameters set:  clf\_\_alpha: 0.001  tfidf\_\_norm: 'l1'  tfidf\_\_sublinear\_tf: True  tfidf\_\_use\_idf: False | 0.910 |
| CountVectorizer()  TfidfTransformer()  SGDClassifier(loss='hinge', penalty='l2', alpha=1e-3, random\_state=42, max\_iter=5, tol=None)  Best parameters set:  clf\_\_alpha: 0.001  tfidf\_\_norm: 'l2'  tfidf\_\_sublinear\_tf: True  tfidf\_\_use\_idf: True | 0.919 |

Best algorithm and feature extractor:

CountVectorizer()

TfidfTransformer()

SGDClassifier(loss='hinge', penalty='l2', alpha=1e-3, random\_state=42, max\_iter=5, tol=None)

Accuracy: 0.919