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```python
1   import numpy as np
2   import pandas as pd
3   import matplotlib.pyplot as plt
4   import seaborn as sns
5   from typing import Dict, List, Tuple, Optional, Union
6
7   from sklearn.base import BaseEstimator
8   from sklearn.naive_bayes import MultinomialNB
9   from sklearn.linear_model import LogisticRegression
10  from sklearn.svm import LinearSVC
11  from sklearn.ensemble import RandomForestClassifier, GradientBoostingClassifier, VotingCla
12  from sklearn.neural_network import MLPClassifier
13  from sklearn.pipeline import Pipeline
14  from sklearn.feature_extraction.text import TfidfVectorizer, CountVectorizer
15  from sklearn.model_selection import cross_val_score, GridSearchCV, train_test_split, learn
16  from sklearn.metrics import classification_report, accuracy_score, confusion_matrix, f1_sc
17
18  from imblearn.over_sampling import SMOTE
19  from imblearn.pipeline import Pipeline as ImbPipeline
20
21
22  class TextClassifier:
23      """A class for training and evaluating multiple text classification models.
24
25      This version assumes that data is preprocessed and vectorized before being passed in.
26      """
```