

Minor_SVM

```
from google.colab import drive
```

```
drive.mount('/content/drive')
```

```
# Example path (adjust if different)
```

```
path = "/content/drive/MyDrive/FakeNews/"
```

```
!pip install scikit-learn pandas numpy
```

```
import pandas as pd
```

```
from sklearn.model_selection import train_test_split
```

```
from sklearn.feature_extraction.text import TfidfVectorizer
```

```
from sklearn.svm import LinearSVC
```

```
from sklearn.metrics import classification_report, accuracy_score
```

```
# Load dataset
```

```
true_news = pd.read_csv("True.csv") # if uploaded to Colab working dir
```

```
fake_news = pd.read_csv("Fake.csv")
```

```
# Add labels
```

```
true_news["label"] = 1
```

```
fake_news["label"] = 0
```

```
# Combine and shuffle
```

```
df = pd.concat([true_news, fake_news], axis=0)
```

```
df = df.sample(frac=1).reset_index(drop=True)
```

```
# Use title + text
```

```
df["content"] = df["title"] + " " + df["text"]
```

```
X = df["content"]
```

```
y = df["label"]
```

```
# Split dataset
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
```

```
# Vectorization
```

```
vectorizer = TfidfVectorizer(stop_words="english", max_df=0.7)
```

```
X_train_vec = vectorizer.fit_transform(X_train)
```

```
X_test_vec = vectorizer.transform(X_test)
```

```
# Train SVM
```

```
svm_model = LinearSVC()
```

```
svm_model.fit(X_train_vec, y_train)
```

```
# Predictions
```

```
y_pred = svm_model.predict(X_test_vec)
```

```
# Evaluation
```

```
print("✅ Accuracy:", accuracy_score(y_test, y_pred))
```

```
print("\nClassification Report:\n", classification_report(y_test, y_pred))
```