

NLP Project

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Logistic Regression (0.9886 ± 0.0016)

Pipeline Steps

- Step 1 : Text Cleaning & Preprocessing
- Step 2 : TF-IDF Vectorization (20K features)
- Step 3 : Logistic Regression Training
- Step 4 : Model Evaluation & Deployment

Accuracy:0.9875

Metric	Class 0 (Fake)	Class 1(Real)
F1 Score	0,99	0,99
Recall	0,98	0,99
Precision	0,99	0,99

Naive Bayes Model (0.9530 ± 0.0014)

Metric	Class 0 (Fake)	Class 1(Real)
F1 Score	0,95	0,95
Recall	0,95	0,95
Precision	0,95	0,95

Validation and Deployment

- Excellent performance in a control environment
- Real-world testing reveals the model shows higher confidence in detecting fake news patterns while being more cautious with authentic content - highlighting opportunities for dataset diversification and model generalization improvements
- Deployment:(also the folder name)

- app.py (Gradio interface)
- utils.py (Model processing)
- requirements.txt (Dependencies)
- logistic_regression_model.pkl (Trained model)
- tfidf_vectorizer.pkl (Vectorizer TF-IDF)

Fake News Detector

Classify news as REAL or FAKE using AI

News Title

President Announces New Economic Policy

News Content

The White House confirmed today the implementation of new economic measures aimed at stabilizing markets. The policy includes tax adjustments and infrastructure investments, following congressional approval last week.

Result

REAL

Model Confidence

68.9%

Fake News Detector

Classify news as REAL or FAKE using AI

News Title

SHOCKING: Celebrity Government Cover-Up Exposed

News Content

A leaked document reveals that top celebrities have been secretly running the government for decades! The explosive report shows how famous actors and singers have been making all major political decisions behind closed doors. One insider claims, "They've been manipulating elections and controlling the economy without anyone knowing!" The truth will change everything you thought you knew about politics!

Result

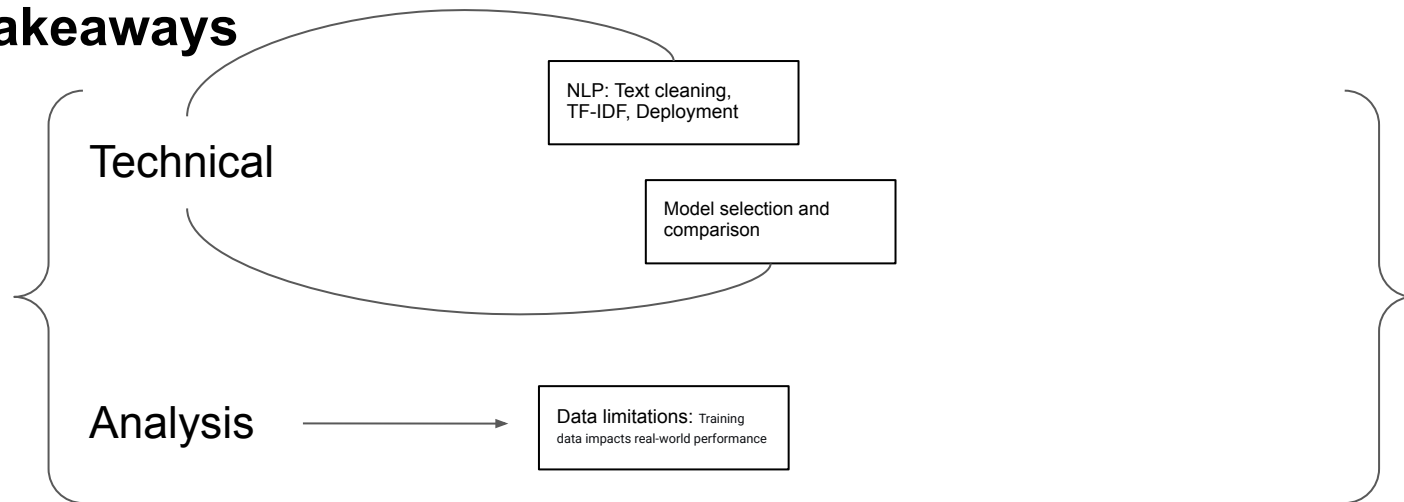
FAKE

Model Confidence

93.8%

Learning Takeaways

Learnings



Takeaways

