

ML + DL Models	Feature	Accuracy	Precision	Recall	F1-Score
BERT	Lora	88.32	90.91	90.23	90.57
Logistic Regression	Graph	89.78	92.06	87	89.46
Stacking Classifier (GNB)	Graph	89.78	92.06	87	89.46
Soft Voting (LogReg + SVC)	Graph	89.78	92.51	86.5	89.41
Stacking Classifier (LogReg)	Graph	89.78	92.51	86.5	89.41
Stacking Classifier (Gradient Boosting)	Graph	89.78	92.97	86	89.35
Logistic Regression	TF-IDF	85.51	82.69	96.99	89.27
Stacking Classifier (SVC)	Graph	89.53	92.47	86	89.12
Hard Voting (LogReg + SVC)	Graph	89.53	92.93	85.5	89.06
Naive Bayes	Part of Speech Tag	85.51	84.46	93.98	88.97
Support Vector	TF-IDF	85.05	82.17	96.99	88.97
Support Vector	Graph	89.28	91.98	86	88.89
Stacking Classifier (RF)	Graph	89.03	91.94	85.5	88.6
Soft Voting (All)	Graph	88.53	90.53	86	88.21
Hard Voting (All)	Graph	88.53	92.31	84	87.96
Support Vector	Part of Speech Tag	84.58	85.71	90.23	87.91
Soft Voting (GNB + RF)	Graph	87.28	88.6	85.5	87.02
Naive Bayes	Graph	87.03	87.76	86	86.87
K-Nearest Neighbors	TF-IDF	82.71	82.88	90.98	86.74
Bi-LSTM	Attention Mechanism	83.64	87.69	85.71	86.69
Random Forest	Graph	88.89	89.25	83	86.01
Random Forest	TF-IDF	80.84	78.75	94.74	86.01
RNN	-	82.71	88.1	83.46	85.71
Hard Voting (GNB + RF)	Graph	86.53	91.48	80.5	85.64
K-Nearest Neighbors	Graph	85.54	84.8	86.5	85.64
BERT	Fine Tune	83.64	95.37	77.44	85.48
Logistic Regression	Part of Speech Tag	81.78	85.07	85.17	85.39
Random Forest	Part of Speech Tag	78.97	76.5	95.49	84.95
Naive Bayes	TF-IDF	78.04	74.16	99.25	84.89
Decision Tree	Word2Vec	76.34	85.51	83.91	84.7
BERT	w/o Fine Tune	82.06	90.33	79.36	84.49
LSTM	-	83.18	89.09	80.33	84.48
Random Forest	Word2Vec	73.36	74.68	86.47	80.14
K-Nearest Neighbors	Part of Speech Tag	64.95	64.22	98.5	77.74
GRU	-	74.77	78.33	77.05	77.69
Support Vector	Word2Vec	62.15	62.15	100	76.66
Decision Tree	Part of Speech Tag	71.03	78.86	72.93	75.78
Decision Tree	TF-IDF	69.16	74.81	75.94	75.37
Decision Tree	Graph	75.06	75.25	74.5	74.87
Logistic Regression	Word2Vec	61.68	63.63	94.93	74.38
K-Nearest Neighbors	Word2Vec	64.02	67.5	81.2	73.72
Naive Bayes	Word2Vec	57.48	75	47.37	58.06

DL Models	Feature	Accuracy	Precision	Recall	F1-Score
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