

Results obtained using CNN

Hate Speech Identification :

(Using common crawl glove 300d vectors)

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.735000	0.705278	0.707303	0.694890
With stemming	0.559000	0.602085	0.588928	0.552665
With user removal	0.721900	0.70129	0.700100	0.683955
Without stopwords removal	0.699000	0.699000	0.699000	0.698964

Aggression Detection

(Using common crawl glove 300d vectors)

Method - 1 (Using Three Classes - Hate-Aggressive, Hate-Non aggressive,Non-Hate)

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.596000	0.536176	0.540671	0.518295
With stemming	0.439000	0.511105	0.501782	0.443725
With user removal	0.57	0.5156	0.522213	0.507612
Without stopwords removal	0.590351	0.521256	0.537190	0.517776

Aggression Detection :

(Using common crawl glove 300d vectors)

Method 2 - Classifying Hateful tweets first and then using hateful tweets to predict Aggressive tweets

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.669	0.668	0.653	0.657
With stemming	0.651	0.613	0.551	0.546
With user removal	0.659	0.622	0.636	0.601
Without stopwords removal	0.657	0.599	0.611	0.621

(using fasttext embeddings)

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.672131	0.667304	0.676458	0.665750
With stemming	0.660422	0.657555	0.660519	0.657415
With user removal	0.6612	0.622	0.636	0.601
Without stopwords removal	0.687	0.599	0.611	0.621

Target Identification :

(Using common crawl glove 300d vectors)

Method 2 - Classifying Hateful tweets first and then using hateful tweets to predict Target : Individual or Group

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.899297	0.899895	0.899895	0.899297
With stemming	0.821	0.819	0.810	0.816
With user removal	0.875	0.873	0.868	0.871
Without stopwords removal	0.831	0.811	0.827	0.824

(Using fasttext 300d embeddings)

Method 2 - Classifying Hateful tweets first and then using hateful tweets to predict Target : Individual or Group

	Accuracy	Precision	Recall	F-Score
Without - stemming,hashtag removal, url removal and cleaning	0.885246	0.886558	0.888915	0.885155
With stemming	0.875878	0.877426	0.881039	0.875704
With user removal	0.875	0.873	0.868	0.871
Without stopwords removal	0.831	0.811	0.827	0.824

Method 2 - Aggression Detection on Different Dataset size using EDA and MT:

EDA:

	Accuracy	Precision	Recall	F1-score
Normal Size	0.639344	0.633826	0.643240	0.630789
Degree2	0.667447	0.666788	0.666788	0.666788
Degree3	0.655738	0.655577	0.655338	0.655367
Degree4	0.690867	0.691297	0.690920	0.690729

Machine Translation

	Accuracy	Precision	Recall	F1-score
Normal Size	0.639344	0.633826	0.643240	0.630789
Degree2	0.672131	0.676910	0.683845	0.670161
Degree3	0.693208	0.694230	0.693202	0.694230
Degree4	0.683841	0.684780	0.684536	0.683813

Method 2 - Target Detection on Different Dataset size using EDA and MT:

EDA:

	Accuracy	Precision	Recall	F1-score
Normal Size	0.899297	0.899895	0.899895	0.899297
Degree2	0.920375	0.920833	0.920926	0.920374
Degree3	0.915691	0.916469	0.916359	0.915690
Degree4	0.909641	0.901231	0.900911	0.905690

MT :

	Accuracy	Precision	Recall	F1-score
Normal Size	0.899297	0.899895	0.899895	0.899297
Degree2	0.903981	0.904461	0.904301	0.903979
Degree3	0.899297	0.900136	0.900664	0.899289
Degree4	0.908665	0.909269	0.909269	0.908665

LSTM :

TR using EDA :

	Accuracy	Precision	Recall	Precision
Normal Size	0.695550	0.747610	0.701264	0.682364
Degree 1	0.714286	0.735496	0.717960	0.709815
Degree 2	0.690867	0.712880	0.694766	0.685258
Degree 3	0.718970	0.746939	0.723130	0.713115

TR using MT :

	Accuracy	Precision	Recall	Precision
Normal Size	0.695550	0.747610	0.701264	0.682364
Degree 1	0.728337	0.747771	0.731779	0.724712
Degree 2	0.723653	0.750398	0.727696	0.718275
Degree 3	0.728337	0.741514	0.731175	0.726052

LSTM :

AG using EDA:

	Accuracy	Precision	Recall	Precision
Normal Size	0.597190	0.591796	0.597753	0.588226
Degree 2	0.585480	0.581003	0.584514	0.578743
Degree 3	0.592506	0.588983	0.591332	0.587929
Degree 4	0.599532	0.594456	0.599856	0.591465

AG using MT:

	Accuracy	Precision	Recall	Precision
Normal Size	0.597190	0.591796	0.597753	0.588226
Degree 2	0.592506	0.588983	0.591332	0.587929
Degree 3	0.606557	0.601600	0.607159	0.598900
Degree 4	0.611241	0.609426	0.610128	0.609440

TR using EDA :

	Accuracy	Precision	Recall	Precision
Normal Size	0.796253	0.799800	0.821314	0.793420
Degree 2	0.812646	0.823166	0.814937	0.811778
Degree 3	0.805621	0.827801	0.808933	0.803338
Degree 4	0.791569	0.794268	0.805620	0.790077

TR using MT :

	Accuracy	Precision	Recall	Precision
Normal Size	0.796253	0.799800	0.821314	0.793420
Degree 2	0.800937	0.816709	0.803763	0.799348
Degree 3	0.789227	0.805169	0.792106	0.787454
Degree 4	0.765808	0.787853	0.769275	0.762683