

Sedat CAN

Final Report

Hate Speech Detection Model

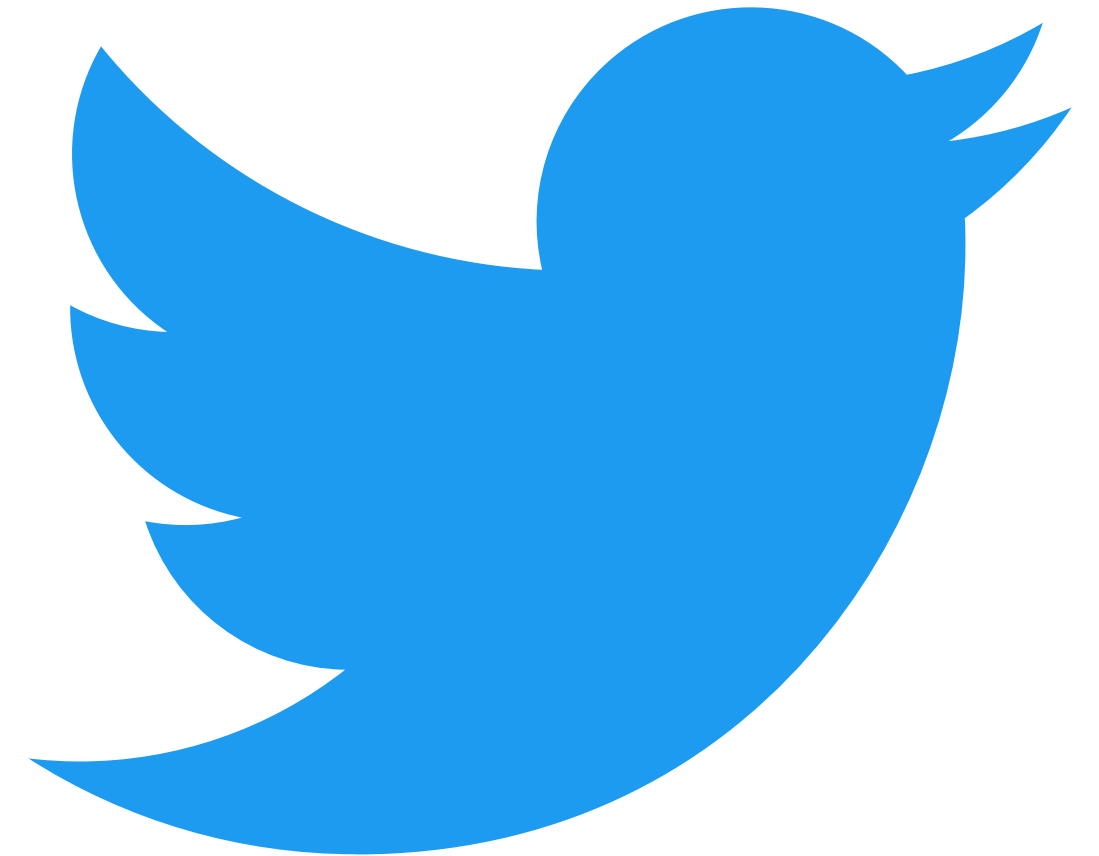


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Agenda

- Executive Summary
- Problem Statement
- EDA
- Model
- Final



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Problem Statement

Hate speech is one of the biggest problems that social media users face on daily basis.

The hate speech detection model would evaluate and classifies whether tweets include hateful speech or not and filters these tweets to offer a better user experience



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Columns

1- Id

2- Label

3- Tweets

EDA

Tweets

the user, text and hashtag, special characters

Tweet before processed

```
tweet
#studiolife #aislife #requires #passion #dedic...
@user #white #supremacists want everyone to s...
safe ways to heal your #acne!! #altwaystohe...
is the hp and the cursed child book up for res...
3rd #bihday to my amazing, hilarious #nephew...
```

Processed tweet data

```
lematizer
studiolife aislife requires passion dedication...
white supremacists want everyone to see the ...
safe ways to heal your acne altwaystoheal h...
is the hp and the cursed child book up for res...
rd bihday to my amazing hilarious nephew el...
```

Random Forest

```
[[400  55]  
 [ 70 372]]
```

	precision	recall	f1-score	support
0	0.85	0.88	0.86	455
1	0.87	0.84	0.86	442
accuracy			0.86	897
macro avg	0.86	0.86	0.86	897
weighted avg	0.86	0.86	0.86	897



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GradientBoostingClassifier

```
[ 74 500]]
```

	precision	recall	f1-score	support
0	0.84	0.84	0.84	455
1	0.84	0.83	0.84	442
accuracy			0.84	897
macro avg	0.84	0.84	0.84	897
weighted avg	0.84	0.84	0.84	897



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Final

Among three models
Random Forest gives better result



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Thank You



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