

# CSE 523 Machine Learning

# **Progress Report:**

## **Toxic Comments Classification**

#### **Group Details:**

#### **NaN-Prediction Pending**

Sr. No.	Name	Enrollment Number
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### Tasks performed in the week:

- We tried to observed the results of varying character pairs as well as more than one word for tf-idf matrix and analyzed model performance
- Studied about different methods of dimensionality reduction including PCA
- Tried to manually tune hyperparameters (e.g. learning rate)

#### Outcomes of the tasks performed:

- We were able to observe whether the relevance of words in comment increases or decreases by varying numbers of eigen values.
- Analyze the performance of models after fine tuning and how we could improve it

#### Tasks to be performed in the upcoming week:

- We would be implementing more non-linear classifiers and check it accuracy on our dataset
- Working on end semester presentation and report

#### References:

- 1. https://www.kaggle.com/c/jigsaw-toxic-comment-classification-challenge/dat
- 2. https://smltar.com/
- 3. <a href="https://www.tidytextmining.com/tidytext.html">https://www.tidytextmining.com/tidytext.html</a>
- 4. <a href="https://arxiv.org/ftp/arxiv/papers/1903/1903.06765.pdf">https://arxiv.org/ftp/arxiv/papers/1903/1903.06765.pdf</a>