**Introduction**

Implementing the Text Classification with CNN model with new dataset and displaying the graphs in the tensor board.

**Objectives**

To perform the text classification with Convolutional Neural Networks model and display the results in tensor board.

**Approaches/Methods**

In the beginning, I choose the consumer complaints as the input file. Here we will develop a model of multilayers where the layers perform the convolution of embedded words then the convolution layer is converted into a long feature vector. Then the feature vector is used from the max pooling by solving the matrix multiplication and choose the class with more score.

**Workflow**

1-> Select the dataset

2-> Import the dataset

3-> Convert the characters to strings

4-> Collect the most frequent words and build the vocabulary and store every word as key value pair

5-> Build the model and loss function which is optimized by using the Gradient Descent Optimizer

6-> Train the model and plot the graph on tensor board

**Dataset**

Consumer complaints Dataset

**Parameters**

* Vocabulary size
* Number of classes
* Embedding size
* Filter sizes
* Number of filters
* R2 lambda value and classify the model into eleven classes

**Evaluation**

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

Predicting the CNN:

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

DataHelpers:

A screenshot of a social media post

Description generated with very high confidence

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Description generated with very high confidence

Graph in Tensor Board:

A close up of text on a white background

Description generated with high confidence

A screenshot of a social media post

Description generated with very high confidence

A screenshot of a social media post

Description generated with very high confidence

Output:

A close up of text on a white background

Description generated with very high confidence

**Conclusion**

We conclude that metrices are not smooth because we have used small batch sizes for training