**ASSIGNMENT 2**

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1. Introduction

Machine learning is a deep, convolutional neural networks system that has been successfully applied for the visual imagery. The cnn is used which has the multilayers designed for the least processing. These are basically addicted or taken from the biological processes.

Convolutional layers apply a convolution operation to the input, passing the result to the next layer. The convolution emulates the response of an individual neuron to visual stimuli. Each convolutional neuron processes data only for its [receptive field](https://en.wikipedia.org/wiki/Receptive_field).

1. Objectives
2. Text classification with CNN
3. Graph in Tensor Board
4. Various hyperparameter
5. Approaches/Methods

The basic concentration has been on using the text classification of the given data set using the CNN (Convolutional neural network). For small data sets the classification of the text is very simple and faster, but in the situations where we use the larger and difficult datasets the classification becomes difficult in the same way.

The applications of the word embeddings which is the key for the text processing with the data learning. Simultaneous applications of the automatic text generation also learns the text corpus and from this model using this model the future new text is generation takes place. It has two ways like the word by word and by the character by character.

The advantages of the CNN are:

1. The cnn legitimately makes more stronger assumptions hence the results obtained are stronger.

2. The assumptions made are locally done leading to more powerfull software.

1. Workflow
2. Loading the sentences, lables, training parameters. Linking the sentences and mapping each word with an id:

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Description generated with very high confidence]()

1. Splitting the data into training sets later shuffling the training sets into the train and the developer sets, saving the data into json file and supplying it back to the program again

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1. Generating the graph and the objects of the convolution of the neural networks

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1. Creating the graphs based on the training data x train and y train

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1. Finally we predict the data into the graphs and compare them to make them easily comparable

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1. Datasets

The data set has nearly eleven classes, as the goal is to predict the number of times the user uses his card. the dataset has many columns which are categorized into different classes. This classes are generated into the values that we are comparing at the end.

The data set has: credit card details, money transfer, consumer loan, debt collection, mortgage, student loan.

1. Parameters:

* Sequ length
* Number of class
* Embeding size
* Filler siz
* No. of filtrs

1. Evaluation & Discussion (Conclusion)

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A screenshot of a map

Description generated with very high confidence

A screenshot of a map

Description generated with very high confidence

A screenshot of a social media post

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**Sample percentage** = **Accuracy**

**Learning rate** = **LOSS**