**ASSIGNMENT 3**

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1. Introduction

Basically, in this lab assignment the major focus has been on the various types of neural networks. So the various types considered are : CNN(Convolutional Neural Networks), RNN(Recurrent Neural Network) and the last one is LSTM(Long Short Term Memory).

So, the major comparison between the CNN and RNN are:

* CNN pushes finite size of the inputs and produces finite size of outputs. Whereas the later can take random amount of the input and produce random amount of the output.
* CNN is a feed-forward neural network while the RNN uses its internal memory for the process for processing the input sequences.
* Connectivity pattern is seen in the CNN among the neurons which include the response of the overlapping regions tilting the visual fields. In the case of the RNN it used the time-series that will show effect in the past and the future answer prediction.
* CNN used in the image and video prediction. Whereas RNN is used for the text and speech prediction.

1. Objectives
2. Text classification with CNN, RNN, LSTM
3. Comparison of results between all the Neural Networks

1. Workflow
2. A screenshot of a cell phone

   Description generated with high confidenceImport statements
3. Txt file containing words for training

A screenshot of a cell phone

Description generated with very high confidence

1. Parameters

A screenshot of text

Description generated with very high confidence

1. Input to graphs and assigning weights

A screenshot of a cell phone

Description generated with very high confidence

1. RNN CODE

A screenshot of a social media post

Description generated with very high confidence

1. Loss and optimizer , model evaluation, Variable initialization

A screenshot of a social media post

Description generated with very high confidence

1. Launching graph in tensor board

A screenshot of a social media post

Description generated with very high confidence

1. Continuation code

A screenshot of a cell phone

Description generated with very high confidence

1. Finding the word in the dictionary

A screenshot of text

Description generated with very high confidence

1. Datasets

The data set is a small dataset about MAMZELLE AURLIE which describes about her and all her information.

![A screenshot of a cell phone

Description generated with very high confidence]()

1. Parameters:

* Learning Rate = 0.001
* Number of training iterations = 10000
* Number of display steps = 1000
* Number of inputs = 2
* Number of hidden layers = 10

1. Evaluation & Discussion (Conclusion)
2. Task 1 graph

![A screenshot of text

Description generated with very high confidence]()

1. Task1-accuracy

![A screenshot of a social media post

Description generated with very high confidence]()

1. Task1 deploy

![A screenshot of a social media post

Description generated with very high confidence]()

1. Task1 loss

![A screenshot of a social media post

Description generated with very high confidence]()

1. Task2 graph

![A screenshot of a cell phone

Description generated with very high confidence]()

1. Task2 accuracy

![A screenshot of a social media post

Description generated with very high confidence]()

1. Task2 loss

![A close up of a map

Description generated with high confidence]()

1. Task2 deploy

![A screenshot of a social media post

Description generated with very high confidence]()

1. Conclusion:

The observations are :

1. The text is short and since I have used the sentiment analysis is more considered to be best with the CNN.
2. Bec of the classification is based on the feature detection like the angry, sadness, etc CNN gives much better accuracy than the RNN.