Project Title:-

Vision Transformer - Prof Rajesh Hegde

Midterm report of the project

Topics covered in lectures

1. Function activation and loss.
2. Linear Regression, Logistic Regression, Gradient Descent
3. K means Clustering
4. Evaluation Metrics
5. Regularization
6. Stochastic Gradient Descent
7. Optimizers
8. CNN
9. Batch Normalization
10. RNN
11. LSTM
12. BiRNN
13. GRU

Assignements solved:-

1. Assignment 1 -
   In this assignment we took a datasample and Learned about applying Numpy and Pandas Creating functions and Which was finally used to find the expected scores and predicted scores.
   Also using matplot Plotting the Results.

2. Assignment 2 -
   In this assignment We imported the MNIST dataset and done backpropagation, Updating variables Writing the code for model and at the end Also calculating the accuracy which came out to be approx 85.45%
   Basically this model can see handwritten numbers from 0 to 9 and can Tell which number is it.

3. Assignment 3-
   In this assignment Only theoretical questions were there.

4. Assignment 4-
   In this assignment we defined the baseline model It was about CNN and batch normalization Where we also calculated the accuracy, training and validation loss & Accuracy. The graph plotted was very close to the actual training datasets.

5. Assignment 5-
   In this assignment we made a character level language model where names of dinosaurs were taken and then randomly new names were generated by observing the pattern.