

Assignment – 8(b)

Practice Assignment- Problem Solving

Case study1: Twitter Sentiment Analysis Case study

Design a neural network for recognizing the sentiments of tweets. For implementation, use the dataset mydata.csv. This file contains sentiment marked tweets.

Train the model using backpropagation architecture. Print input, output, predicted output, and loss.

Perform following operations

- (a) Feature engineering
 - a. Tokenize the tweets
 - b. Remove the tokens which start with '@' or 'http' or '#'
 - c. Create a naïve feature vector which is the set of words in the tweets.
 - d. Collect all the words in the tweets, sort them, remove duplicates.
 - e. Convert sentence to vector
 - f. Break dataset in to training and test set.

You will have to annotate some. All the annotated tweets will be used by all the groups.

Case Stuy2: Digit Recognitions [NPTEL Assignment]

Give perceptrons for recognizing digits 0-9. Assume 7-segment display. Each perceptron K ($K=0\dots9$) outputs 1 when K is input, else outputs 0.