Birla Institute of Technology and Science, Pilani – KK Birla Goa Campus

Neural Networks and Fuzzy Logic (BITS F312)
Assignment 2 (RNN based)

Submission Deadline: 1st December, 2021, 11:59 PM

Objective: To exploit temporal data in videos using recurrent neural networks. Students are expected to utilise this idea to classify a set of videos into 2 categories.

Task1:
Prepare the provided dataset for training and evaluation of RNN.

Task2:
Create a RNN with your choice of architecture, tune it, and train it to get the best prediction result out of it.
Note: The architecture has to be your own, with proper reasoning to back it up. You are allowed to use the Tensorflow Library for the purpose of layers and other model parameters but Transfer Learning/Use of Pre-Trained Models isn't allowed.

Submission Details:
Create a .csv file of your model evaluated on the test data and upload it. You can check the sample submission for the format.

Evaluation Components:
- Your submission for this assignment would be evaluated based on below factors
  - Accuracy, precision and recall of the model
  - Prediction accuracy on test dataset (not included in provided dataset)
  - Architecture and Reasoning (this is the key metric)
  - Class Discussion

General Guidelines:
- You can create a presentation for the class discussion if you so wish. You can also just present your code.
- Assignment needs to be done in groups of 3 or 4 students. Please form the group in the provided google sheet ASAP. You can find the sheet here: Assignment 2 Groups
- Dataset and further details can be found on the kaggle assignment page:
  https://www.kaggle.com/c/nnfl-2021-assignment-2