ANN AND DEEP LEARNING (CSE636)
M.Tech. I (CSE) Semester – II 2022-23

Date: 17th Feb. 2023

LAB ASSIGNMENT-3

Instructions:

Assignment must be uploaded as following:

a. PDF containing source code must be written against each question followed by output screen shot with following naming convention: "AdmNO_Name_LabAssig_2" over Classroom.
b. Source code in Zip form same name convention used in PDF.
c. Source code must be written in python.

Dataset-1: https://www.kaggle.com/datasets/joshmcadams/oranges-vs-grapefruit
Dataset-2: https://www.kaggle.com/datasets/l33tc0d3r/indian-food-classification

Questions:

1. Design a neural network model for Binary Classification for Dataset-1
   a. Use different activation functions hidden and output layers
   b. Use different loss functions output layers
   c. Compare the results using appropriate visualization plot.
2. Design a neural network model for Multi-class Classification for Dataset-2. Use different activation functions hidden layers and compare the performance of model.

Reference:

i. https://www.nbshare.io/notebook/751082217/Activation-Functions-In-Python/#sigmoid-activation-function
ii. https://vidyasheela.com/post/activation-function-in-deep-learning-python-code-included
iii. https://www.analyticsvidhya.com/blog/2019/08/detailed-guide-7-loss-functions-machine-learning-python-code/