CSX4208 / ITX4208 Deep Learning

Semester 1/2024

Worksheet#2

Instructions:

1) Answer the following questions,
   a) How many weights and bias for a fully connected feed forward neural network which has 49 nodes input layer, 2 hidden layers with 12 nodes each, and 8 nodes output layer?
   b) What is credit assignment path (CAP)? What is the value of CAP for a neural network from question a)?
   c) What is loss/cost function in NN?
   d) Can you consider the neural network from question a) as deep neural network? Justify your answer?

2) Design a vanilla neural network to categorize the iris flower. You can download and use the iris data set from the following link: https://archive.ics.uci.edu/ml/datasets/iris
   If you have no idea how to start, you can follow the given link down here: https://visualstudiomagazine.com/Articles/2018/05/01/Inroduction-to-Keras.aspx?Page=1

3) Implement a simple deep learning project by follow the given online article, https://www.analyticsvidhya.com/blog/2021/11/newbies-deep-learning-project-to-recognize-handwritten-digit/