1. **Description of the selected forecasting problem**

Iris flower can be classified into three related species - Setosa, Versicolor and Virginica. The specific type of the species can be judged according to the width and length of its Petal and Sepal. Hence, the goal of this assignment is to judge the type of the iris flower based on the input width and length number.

1. **Overview of the network architecture(s) you have used including important parameters that affect the network operation. Make sure you include parameters you will tune for your problem.**

For this assignment, I chose Feed-Forward Neural Network(FFNN) with at most 10 layers as my deep learning models. The reason for doing so is because my set is some data with 4 features being classified into 3 categories. For the features, they are mutually independent. The values of the features and the result categories determined by the features have a non-linear relationship. Hence, a fully connected feed-forward neural network with multiple layers can be an appropriate model to describe their relationships.

The Convolutional Neural Network(CNN), on the contrary, is not suitable for my data set. Convolutional Neural Network is designed based on the assumptions that the data is locality(spacial relevant), hence, for data like image pixels which can fit this strong assumption well, it can get a stronger results. Otherwise, using such network doesn’t make sense and even leads to a worse results.

The Recurrent/Recursive Neural Network(RNN) is based on an assumption that the data is sequential relevant. Therefore, RNN is suitable for scenario like time series or sentimental prediction. Again, the data that this assignment uses does not cater such assumption.

1. **• Description of the process you have used including data pre-processing, feature generation, model training, and evaluation.**