Practical 4

Topics in Deep Learning

ANN Model for classification

❖ **Dataset –**

- **CIFAR10**
- **Churn modelling**

❖ **Steps to build ANN models for image classification –**

1. Load the required libraries and modules
2. Load the data and apply pre-processing - Load image data
3. Flatten the images to generate vector
4. Normalize vectors
5. Prepare training vectors and class label
6. Define neural network model - We need to specify the number of hidden layers in the neural network and their size, the input and output size.
7. Define loss function, optimizer and other hyper parameters
8. Compile and fit keras model
9. Visualize training, validation loss and accuracy, Predict the test data and compute evaluation metric

❖ Steps to perform -

- Implement ANN model on CIFAR10 dataset.
- Apply binary classification on churn modelling dataset.