

CSX4208 / ITX4208 Deep Learning

Semester 1/2024

Worksheet#1

Instructions:

- 1) Answer the following question and make your own note:
 - What is/are the difference(s) between Artificial Intelligence, Machine Learning, and Deep Learning?
 - What is TensorFlow and Keras?
- 2) Install TensorFlow & Keras into your machine.

Note: You can follow instruction in the following webpage,
<https://medium.com/@margaretmz/anaconda-jupyter-notebooktensorflow-and-keras-b91f381405f8> , or
<https://oindrilen.com/2021/02/how-to-install-and-import-keras-in-anaconda-jupyter-notebooks/>
- 3) Find out more information over the following keywords:
 - Artificial Neural Network
 - Perceptron
 - Input layer, hidden layer, and output layer
 - Weight and bias
 - Activating function
 - MNIST data set
- 4) Example of using MNIST dataset and Keras to recognize hand-written digit, can be found via the following link,
<https://www.analyticsvidhya.com/blog/2021/06/mnist-dataset-prediction-using-keras/>