

CSX4208 / ITX 4208 Deep Learning

Semester 1/2024

Worksheet#5

Instructions:

- 1) Answer the following questions:
 - a. What is Recurrent Neural Network (RNN)?
 - b. When to use RNN?
 - c. What is the main problem of the vanilla RNN model?
 - d. How to overcome the problem from the vanilla RNN?
 - e. What is GRU and LSTM in the context of RNN?*
- 2) A simple example of using LSTM layer in Keras, check the following article out:
<https://machinelearningmastery.com/sequence-classification-lstm-recurrent-neural-networks-python-keras/>
- 3) Download the following time-series dataset from kaggle and construct an RNN model by using Keras to learn and validate.
[Time Series Practice Dataset](#)