

CSCE 5300 Introduction to Big data and Data Science

ICE-10

Lesson Title: Deep Learning

Lesson Description: Deep learning models (RNN,CNN)

In Class Exercise:

You can use google colab (<https://colab.research.google.com>) or Jupiter notebook (on your own laptop) and explain the models or algorithms.

Source code given on Canvas.

1. Run CNN model on the dataset. Change the epoch of the model to improve the performance. Explain how model work and reason of improvement of performance.
2. Run RNN model on the dataset. Change the epoch of the model to improve the performance. Finish coding parts of evaluation methods. Explain how model work and reason of improvement of performance.

ICE Submission Guidelines

1. ICE Submission is individual.
2. ICE code has to be properly commented.
3. The documentation should include the screenshots of your code/queries and results.
4. Provide the explanation of the exercise for each question as per your understanding.
5. The similarity score for your document should be less than 15%.
6. Submit the source code (if any) properly commented and documentation (.pdf/.doc) with explanation and screenshot of source code/queries having input logic and output results.
7. Submission after the deadline is considered as late submission.

References:

Install Anaconda:

<https://docs.anaconda.com/anaconda/install/index.html>

Install tensorflow and keras:

<https://towardsdatascience.com/installing-keras-tensorflow-using-anaconda-for-machine-learning-44ab28ff39cb>

others:

<https://www.cs.toronto.edu/~kriz/cifar.html>

<http://ai.stanford.edu/~amaas/data/sentiment/>

https://en.wikipedia.org/wiki/Long_short-term_memory

https://en.wikipedia.org/wiki/Convolutional_neural_network