Assignment: Final Exam/Project

Purpose

The purpose of this assignment is to synthesize and provide a comprehensive report on an application or technique related to deep learning.

This assignment aligns with the following module outcomes:
- MLO 1: Apply best practices for deep learning.
- MLO 2: Use tools that automatically monitor training and testing performance through their application to deep learning models.
- MLO 3: Use tools that automatically modify hyper parameters for best performance through their application to deep learning models.
- MLO 4: Use tools that automatically reduce overall runtime by modifying end conditions for the deep learning model.

Getting Started:

In this assignment, you will write a report that will summarize and provide a comprehensive background on either an application or technique related to deep learning. The choice of topic, whether it is an application of deep learning, like vision, or text processing, for example, or a technique like Transformer, GANs, etc., is yours. You may further approach this either as a theoretical or empirical/experimental framework. By that, we imply that your final report may be completely theoretical, or it may contain experimental results using your code, or a clearly referenced code.

Nevertheless, the report should contain the following sections:
1. Summary: What does the report deal with? What are the main issues? What are the key findings?
2. Introduction: Provide an introduction to the problem you are studying. Why is this important? Provide some context.
3. Current Research: What are the findings of current research on your topic? Summarize the findings. Make sure to clearly cite all relevant articles and include a bibliography.
4. Data Collection / Model Development: If you are using data, how are you collecting that? What are the characteristics of the data? If your paper is fully theoretical, what model are you proposing? Why?
5. Analysis: What are your findings? What does your research on the topic indicate?
6. Summary and Conclusions
7. References/Bibliography

Your report should be well written, references should be cited in APA style, and Tables and Figures clearly labeled and referenced. There is no minimum length requirement for the report.

The only requirement is that your report should be comprehensive in presenting the current state of your chosen topic.

Instructions (what to submit?):

All work must be your own. Copying other people's work or from the Internet is a form of plagiarism and will be prosecuted as such.

Please upload your report in .pdf format to Canvas. Any code should be uploaded to your git repository. Your grade will depend both on the comprehensiveness of your research, as well as the quality of your report.

You may submit a PDF document as an attachment using the Canvas Assignment tool.
- Click "Start Assignment"
- Select Upload File
- Find the file that is saved on your computer and double click on the filename
- Click "Submit Assignment"

Submissions sent by email will NOT be accepted.

Due dates are listed in the Assignment Schedule document.