AIDI 1002: Final Project Details

Due Date: August 15, 2025 11:59 PM

Project Deliverable	Credit
Project Report	40%
Project Code	60%
Total	100%

You will be graded from 100% and then 20% weightage of your final project score will considered. Detailed Rubrics of each project deliverable is as follows:

- Project Selection: You need to follow the following steps to find out the project topic.

  1. Please form a group of two people within your class and record your information in the provided Excel file below according to your sections.
  2. Your group is required to search on Google Scholar for a research paper related to machine learning, such as Natural Language Processing (NLP), Computer Vision (CV), Time Series Forecasting, etc. The paper should have been published in or after 2019, and it should have a corresponding GitHub repository with the relevant datasets available. For example,
     * Paper title: "Light-Weighted CNN for Text Classification"
     * Github Link:`https://github.com/RituYadav92/Lightweighted-CNN-for-Document-Classification`
     * Datasets: `https://github.com/RituYadav92/Lightweighted-CNN-for-Document-Classification/tree/master/data`
  3. After finding the research paper, please fill out the details in the following excel sheet:
     * `https://georgiancollege-my.sharepoint.com/:x:/g/personal/garima_malik_georgiancollege_ca/EWcJ6XKISBVDvCgWuQ0u0K1dRLKTwKbJtYQHc9g?e=Khho7w`

- Project Implementation: To start the implementation part, you must read through the GitHub repository of the research paper you selected and follow the instructions to reproduce the results. Once you have successfully replicated the code and results, you are required to make one significant contributions to the methodology of the paper. The significant contribution examples are as follows:

  1. You will need to test the methodology of the selected research paper on new datasets to evaluate its effectiveness in different contexts.
  2. You should experiment with changing some of the model parameters to create an upgraded version of the existing methodology. This will allow you to explore the impact of different parameter values on the model's performance.
  3. You can introduce an additional model to the experimentation process. For instance, if the paper implements Random Forest and Decision tree, you could add the Multiple Linear Perceptron (MLP) and provide arguments on whether your contribution has improved the model's performance or not.

Note: You are only required to select or implement one of the examples of contributions mentioned above. However, your contribution should be significant enough to be considered a part of your final term project for the course. You are free to propose a different contribution as long as it adds value to the existing methodology and is significant enough to be considered for the final project. Please note that the focus of your contribution should be on its significance rather than on performance improvement or decrement. The aim is to add value to the methodology and explore different approaches to enhance the model's accuracy.

- Project Code Submission: To submit your project, you must create a public GitHub repository and upload all of your reproducibility and contribution code. It is important to include a README file with instructions on how to run your code. Once you have uploaded your code to GitHub, you can add the link to your repository in the provided Excel sheet. Please ensure that your GitHub repository is public and accessible to anyone with the link. This will allow your instructor to review your work and provide feedback.

- Project Report: You need to prepare a report in a google colab notebook or jupyter notebook by filling up the sections provided in the file "AIDI_1002_Final_Project_Template.ipynb".

  - Submit this file on the blackboard before the due date.
  - Your project code will be submitted through Github Repo.