Department of Electrical and Computer Engineering University of Windsor ELEC-8900-57 Special Topics – Machine Learning Fall 2023

Dr. Yasser Alginahi

Presentation Project Instructions

Project Title: Presenting a Machine Learning Algorithm

Project Description:

In this assignment, you are tasked with creating a PowerPoint presentation, consisting of 18 to 25 slides, on a Machine Learning algorithm of your choice. You will have 20-25 minutes to present your work, the presentation time should be divided equally among the group members. The list of algorithms can be found in the provided Google Sheet found here or (https://tinyurl.com/2u6p7yy2). Some topics are repeated, and I advise those groups to work together to avoid any repetitions so that together your presentations will provide a comprehensive explanation of the topic/algorithm.

Please follow these instructions:

- Selection of Algorithm: Choose an algorithm from the list provided in the Google Sheet. Only one member of your group needs to record the chosen project title and group information in the Google Sheet.
- **Description of Algorithm:** Provide a concise overview of your chosen algorithm.
- **Explanation of Algorithm:** Delve into a detailed explanation of how the algorithm works.
- Examples: Illustrate how the algorithm works, mathematically and programmatically. You may show how to program the algorithm using Python libraries or how to apply Python libraries to a specific example.
- Figures: If it aids in presenting the algorithm, feel free to include relevant figures.
- YouTube Video: If available, include a short YouTube video that explains the algorithm otherwise, if long videos are available include them in the references slide.
- **References:** Don't forget to cite all your sources in IEEE format.

Remember to follow any additional instructions provided to you on preparing your presentation slides.

Project Objectives:

- Conduct research on various Machine Learning algorithms to select the most suitable one for the presentation.
- Develop informative and engaging content for the presentation, including a detailed explanation of the chosen algorithm and examples of its applications.

- Use visual aids such as diagrams, figures, and videos to enhance the presentation and make the algorithm easier to understand.
- Deliver the presentation in a clear and concise manner, ensuring that all key points are effectively communicated to your classmates.

Guidelines for preparing your presentation slides:

- Use MS. PowerPoint.
- Slides should be concise and to the point.
- Slides should provide a description of the algorithm in a clear and organized manner.
- In your slides, present all the facts about the algorithm and your reflections and understanding of the topic.
- Do not copy paragraphs of text from books or internet resources onto slides.
- Use font Times New Roman, size 24 28.
- Each slide should discuss a single idea/theme (if applicable).
- Each slide should have a title, size 32 36, you may repeat the same title on different slides.
- All slides should be numbered in the bottom right corner.
- The presentation should be 18 25 slides (including the cover, table of content, and the references slides) No penalty for exceeding the maximum number of slides.
- Include a cover slide which should contain the project title, your name, instructor name, date and the university name. Font Times New Roman, size: 28 36. (You could add the university logo or design a logo for your own project).
- The slides content should be in bullet format and no more than 5 bullet points on each slide assuming most bullets are only 1 line. Each bullet point should not exceed two lines.
- Always use less text and use more images.
- For the equations use the equation editor in MS to write them.
- Choose colors that have high contrast, so they are easily seen. Dark backgrounds should have light text and bright accent colors. Light backgrounds should have dark text and bold accent colors.
- Use an appropriate presentation template.
- Do not leave lots of empty space on your slides, try to make things look centered.
- Include a references page (list the 5 most important references in your paper). No need to cite the references in the slides, only list them on the last slide of your PowerPoint. References must follow IEEE formatting.
- If you use images from the internet, add the url in small font size below the image or at the bottom of the slide. If you choose not to do this, then you can add a slide for all the image references at the end of your presentation.
- Always strive to use non-copyrighted images or creative commons images that can be reused or modified.
- If some of your websites' urls are too long (more than one line) use https://tinyurl.com/app/ to shorten these links.

Project Objectives:

Submit your PPT files to Bright Space before the date of the presentation, please refer to the instructions and deadline for submissions https://tinyurl.com/2u6p7yy2. Please note that submission deadline is different for each group.