Term Project Report, Presentation Slides, and Code

Start Assignment

Due Nov 13 by 11:59pm **Points** 75 **Submitting** a file upload (Turnitin enabled)
File Types pdf, pkl, bpe, pth, pb, py, r, ipynb, pptx, ppt, js, java, tex, xls, txt, scala, sc, jsp, php, and html

Specific Course Learning Outcome(s):

CLO 3 - Employ tools (such as Hadoop and Spark) and techniques for big data systems, technologies, and applications as part of the homework and project. [PLO 2, 5, 6]

CLO 4 - Create your own big data systems, technologies, and applications problem and design and implement software solutions by applying knowledge learned in the course to complete a course project. [PLO 1, 2, 3, 4, 5, 6]

1. Adhere to the templates accessible from **https://www.computer.org/web/tc/author (https://www.computer.org/web/tc/author)** You can use **https://www.overleaf.com/latex/templates/ieee-demo-template-for-computer-science-journals/fxrxvtcsjqmm (https://www.overleaf.com/latex/templates/ieee-demo-template-for-computer-science-journals/fxrxvtcsjqmm)** to collaborate and use latex.

2. Do not include any code in the report. Instead, upload the .ipynb / .py / .r files along with the report and presentation slides. **If you are uploading .ipynb file(s), please also upload the corresponding .py file after converting the .ipynb to .py file. Avoid screenshots, unless there is no alternative.**

3. IMPORTANT: Please include an appendix in your report on **how** criteria listed in the rubrics (please list in the same order and please do not mislead) have been met. Your claims must be backed up by evidence, to the extent possible. Include any external URLs such as a link to Github, Agile / Scrum user stories (use a tool such as **https://trello.com/en-US/pricing), (https://trello.com/en-US/pricing)** Elevator Pitch Video etc in the appendix. Simply claiming to have used agile, latex, etc without providing evidence will not get you any points for those criteria. Make sure that all external sources provided as evidence are accessible to the teaching team **before** submitting.

4. Remember: All assignments aim to measure how well students mastered the course topics and made progress towards the CLOs of this course. Implementing full-stack applications, amazing front-end / UI, recommender systems, and other tasks not related to the course **may not** count towards the grade. The goal of the project is to exercise what is learned in this course not any Big Data Technology. Save CNN, RNN, LSTM, etc for your Deep Learning course - don't use them for this course.

5. Instead, feel free to explore newer topics closely related to but not covered in this or other courses of the program. Discover your passion and do something different that will have a lasting impact on your career. If you do something for which solutions are already available online, it's an opportunity wasted.

6. If you are using Prezi or some other tool (AI tools are encouraged for creating slides), please still export the slides as a pdf (or .pptx) and upload them here.

7. Length of the report should ideally be 6 - 11 pages, not including appendices. Please reduce the size of the files you are submitting to ~1 MB or less. **Not reducing the file size before submission may result in a penalty being assessed particularly if Canvas runs out of space causing other students being blocked from submitting their assignments.** If some files like the model files (e.g.: .pkl) are huge, upload only the ones which are huge to Google drive and provide a link to them in the appendix listing the criteria met, stating the file sizes as justification.

8. Please feel free to go full swing on Generative AI for creating the elevator pitch video and slide presentation, but exercise caution using it when working on other artifacts. In your report, when you list the criteria fulfilled, list all the tools you used.

9. Include a CRediT statement (Contributor Roles Taxonomy, see: **https://casrai.org/credit/ (https://casrai.org/credit/)**) or similar, listing who did what.

Term Project Rubric

Criteria	Ratings	Pts
Code Walkthrough		5 pts
Presentation Skills Includes time management		5 pts
Discussion / Q&A		5 pts
Demo		5 pts
Report Format, completeness, language, plagiarism, whether turnItIn could process it (no unnecessary screenshots), etc		7 pts
Version Control Use of Git / GitHub or equivalent; must be publicly accessible		3 pts
Lessons learned Included in the report and presentation?		5 pts
Prospects of winning competition / publication		3 pts
Innovation		5 pts
Teamwork		5 pts
Technical difficulty		7 pts
Practiced pair programming? See: **https://en.wikipedia.org/wiki/Pair_programming (https://en.wikipedia.org/wiki/Pair_programming)** Links to an external site. Use GitHub Copilot, if you can and describe the experience using screenshots		2 pts
Practiced agile / scrum (1-week sprints)? Submit evidence on Canvas - meeting minutes, sprint backlog, and any other artifacts. Use tools such as **https://trello.com/en-US/pricing (https://trello.com/en-US/pricing)** Links to an external site. (Free license available)		3 pts
Used Grammarly / other tools for language?		1 pts

Criteria	Ratings	Pts
Grammarly free version is sufficient; can use other tools as well. Submit report screenshot on Canvas.		
Slides		3 pts
Used LaTeX Upload .tex file (it should indicate that the IEEE LaTeX template was used and not generated from doc or other format). Using editors such as Lyx is fine. Also checkout **https://www.overleaf.com/ (https://www.overleaf.com/)** Links to an external site.		2 pts
Used creative presentation techniques Use of Generative AI is ok here. Try animation, effects, newer features such as those offered by prezi, etc.		2 pts
Literature Survey 1. Did not miss out on any important existing work that is relevant to the project. 2. Literature survey is organized into meaningful subsections 3. All references are cited and follow standard notation used in the template		7 pts
		Total Points: 75