Project Description **Deep Learning Spring 2024**
Dr. Ghoraani

Project Overview: In this project, you will work collaboratively in teams to explore and implement recent advancements in the field of deep learning. Through hands-on experience, you will select a journal research paper related to deep learning within the past 5 years, analyze its methodologies, replicate implementations, propose enhancements, and present your findings to your peers.

Project Guidelines:

1. Team Formation:

- You need to create teams of 2-3 members on Canvas by **January 22**.

2. Research Paper Selection:

- Each team selects a journal (Not a conference paper) research paper related to deep learning from the past 5 years (2019 or after).
- The selected papers should focus on significant advancements and contribute to the field's progress.
- The paper must be cited at least 20 times.

3. Project Proposal Submission: By **February 4**, submit a one-page project proposal that encompasses the following details:

  - List of team members.
  - Title and citation of the selected research paper.
  - Number of times the paper has been cited (as of the proposal submission date).
  - A table outlining the tasks, timeline, and the name of the designated person in charge of the task.

Tasks	Start Time	End Time	Person in charge
List the tasks in this column			

  - See any additional instructions are on Canvas when you clink on Project Proposal.

4. Final Project Components^{+}: By **April 28** submit the followings:

- [.pdf file] A one-page report including a bullet list of the tasks performed (data, analysis, implementation, enhancement) and a list of each team member's contribution.

Contribution	Name of the contributor
Briefly explain the contribution	

- [.pdf file] A comprehensive scientific paper using Overleaf, ready for submission to a journal.
    - The paper discusses your project, including motivation, existing approaches, scientific gaps, methodology, results, discussions on findings, and proposed enhancements.
    - Mention the target venue for paper submission.
    - Ensure the paper conforms to the specified journal's formatting requirements.
- [Python codes and data] All related files for implementation, including commented Python codes and datasets used as required.
- [.pdf file] A PowerPoint presentation with voice-over that collectively showcases your team's work.
- See any additional instructions is on Canvas when you clink on Final Project Report.

Project Timeline:

- **Team Formation:** January 22
- **Research Paper Selection:** February 4
- **Project Proposal Submission:** February 4
- **Final Project Submission:** April 28

Assessment and Evaluation:

- **Project Proposal (10%):** Clear presentation of team members, paper citation, motivation, and well-structured plan.
- **Implementation (30%):** Successful implementation and understanding of methodologies presented in the chosen paper.
- **Scientific Paper (30%):** Quality of the written scientific paper, relevance, and targeted submission venue.
- **Presentation (20%):** Effective and engaging presentation of project findings, methodologies, and results.
- **Collaboration (10%):** Effective teamwork, communication, and adherence to deadlines.

Resources:

https://scholar.google.com/
https://github.com/
https://www.kaggle.com/
https://www.overleaf.com/

Note: This project encourages collaboration, in-depth exploration of recent deep learning research, and practical application. It provides a platform for students to enhance their research skills, technical implementation abilities, and presentation capabilities.