Deep Learning / Fall 2023

Project Proposal

Due Date Nov 17

The project proposal will carry 10% of your overall grade. The proposal should be **no more than 1 page long** (including references), typeset in **any format of your choice**. Contents should include:

- The name of all the team members
- A tentative title
- A problem statement, no more than a paragraph
- A very brief literature survey, no more than 2-3 references.
- A brief description of the dataset(s) you will be working with
- A bried description of the model(s) you will be considering.
- What you intent to achieve at the end of the project, no more than a paragraph. Any target metrics that you have in mind can be mentioned here.

Proposals should be uploaded in PDF form to Gradescope. If there are multiple team members, then **only one of you** needs to upload it on Gradescope. **Mark all your team member(s)** when uploading so that you receive full points.

The goals of the project proposal are:

- To get you to start thinking about the details of your final project, and

- For us to give you feedback about project scope. Most likely, your proposal will be excellent; in which case the feedback will be short (something like "Great project!"). In the event that your proposal is either too ambitious (e.g. "I will train a large language model that will surpass GPT-4") or too simple/already covered in class (e.g. "I will train a classifier to classify CIFAR-10 images"), we will point this out and you will need to come up with a slightly more appropriate project scope.

Types of good projects include:

- Implementing a deep learning technique beyond what is covered in class or homework, and evaluating on representative real-world datasets.
- Developing solutions that use deep learning for specific problems, and achieving competitive performance (measured relative to published metrics).
- Reproducing/extending results of a research paper.
- A tutorial on some of the topics above what we covered in class that includes paper and code.

We will post examples of "good" project proposals from previous semesters on Brightspace to give you a sense of what we expect. In all cases, if you use any pre-existing codebases, please cite them liberally.

All source code must be posted in a public Github repository and linked from the report. Due in Finals week (Dec 17).