Project ML2 – Winter 2024/25

You may choose a paper/book chapter from the list:

Papers list

Please assign yourself a paper on the document, any paper from the list is approved. If there's a paper you are interested in that is not on the list please reach out.

1. **Paper summarization –** Your aim is to write your own summarization of the paper. Read the paper and understand it, you may find that you need to read some central referenced paper to understand its context better. We encourage you to do so, to a reasonable extent. As a guideline, include this chapters:
   a. Explain the main topic of the paper.
   b. What are the challenges it addresses and what techniques are proposed?
   c. What are the main results of the paper?
   d. If the paper presents proofs - understand and explain them. You may focus on the central ones if there are many.

   Try to focus on the main elements of the paper. There's no need to cover every part of the paper. This part can be 2-4 pages long, or as needed.

2. **Second part –** You may choose one track.
   a. Theoretical – focus more on at least one of the following:
      I. The novelty or methods of the paper you chose.
      II. Its limitations, or how does it compare to other techniques?
      III. Suggest a short extension or bridge to other methods or knowledge. You may support your result with an experiment (not mandatory). You may modify an existing public code.
   b. Practical - focus more on practical aspects, for example:
      I. Implement the main results of the paper. You may extend code from the internet.
      II. Show results on a dataset/ some alteration to the method/ architecture that does not appear in the original paper.
      III. Discuss your results and how they align/not align with the paper hypothesis.

Submission guidelines

- Project report: You are allowed to use any text editor. Preferably, in Latex. You may use a Latex template.
- Code: Submit code we can run. Preferably, in Pytorch.
- Deadline: TBD