CO542 Neural Networks Reading Group E15 2021

Student feedback (anonymous)

What did you like about the reading group? (What should be taken forward to the next year?)

1. Research paper selection was well done. Overall very positive!
2. Helped me to understand what really happens inside neural networks (mathematics behind it).
3. We were able to nearly cover up important research papers that is not easy to understand.
4. The topics were arranged in a logical manner. But if there is a visualization to illustrate the timeline of the topics (development of the deep learning) from the beginning, it will be nicer.
5. I like asking questions before and after sessions. It will make everyone to understand and study deep.
6. It is an interesting work done by the instructors in order to motivate reading course related work. I personally like the idea but the realization could be more coordinated with the course coordinator properly. This was clearly a first attempt of a good experiment and please improve the workload distribution properly according to appropriate schedule.
7. Good implementation of a continuous assessment. Please consider giving more time to this reading activity. Maybe can be started with course start.

What did you dislike about the reading group? (What should change in the next year?)

1. I can't think of anything I disliked. I think it was one of the best experience.
2. 3 or 4 hours per session is too long. Its better if you can reduce the time per sessions and increase the number of sessions.
3. It was ok
4. Some students/groups just keep reading without emphasizing important concepts. Perhaps it happened because students did not have any prior knowledge. Therefore it is good to have a introductory lecture for each of these concepts. And it felt like the allocated time to cover everything was not enough. Lectures should be more organized and should consider about the course duration.
5. I prefer giving more marks for reading group in next year.
6. Reading group is a must, but some additional work like writing assignments are not needed obviously. I think reading group work should be done with the start of the course, not halfway there. We didn't have quality time to read and analyze some of the content with other already fixed work of courses and projects going on. Timing could be done better. And another way of doing this would be by assigning only one some quality textbook or two of them rather having to read random research/project work. In that way we could really learn something solid (within the scope of course ILO, rather than out of

scope some huge project work) within the given amount of time. Maybe a whole chapter could be assigned to a team. Please consider working on a textbook or two of them.

7. The impression for me was mostly this is not related to Neural Networks in particular. It was more convenience for a Final Year Project course evaluation. It was more likely, the course coordinators was trying to get back in the research work or something. But other than that, I like the idea of reading group work. Don't omit this in future courses.

Analysis

This section is written by Gihan for the reference of the 2022 reading group organizer. The opinions presented in this section are personal and not indicative of the standings of the course Coordinators or instructors.

1. All yellow comments could be addressed by structuring the course with NN in the first half and fuzzy systems in the second half. The reading group can be spread throughout the semester so that one (max two) paper(s) can be discussed per week.

   This is decided by the course coordinator (not the reading group organizer). Hopefully, the 2022 reading group organizer will discuss this with the 2022 course coordinator.

2. The green comment could be solved by starting the reading group after a few lectures. That way, the theory would be covered in the lectures before the reading group. Also, the reading group organizer should keep an eye on the lecture schedule (which I didn't do properly in 2021)

3. The magenta comment is debatable. Asking students to just present something is not enough. We need a mechanism to make sure the students are thorough with the material. The obvious solution for this would be students being evaluated through a Q and A session right after the presentation.
   However, it seemed very unrealistic to expect the students to answer questions comfortably right after the presentation. Letting the students take some time and answering the questions seemed to be generating better answers

   (in my opinion, saying "I don't know the answer" in the live Q and A is always better than "saying something" and hoping to get "some marks")

   Anyhow, the 2022 organizers will consider the magenta comment when making the 2022 reading group plan.

4. I cannot agree with the blue comment. Recommended textbooks **complement** the course delivery while the reading groups **supplement** the course contents.

   Anyhow, the 2022 reading group organizer will consider the blue comment. Either way, some good textbooks are

- ML books: read only the NN chapter.
  - Bishop, C.M., 2006. Pattern recognition and machine learning. springer.
  - Daumé III, H., 2012. A course in machine learning. Publisher, ciml. info, 5, p.69.
- NN book: read the full book.
  - Bengio, Y., Goodfellow, I. and Courville, A., 2017. Deep learning (Vol. 1). Massachusetts, USA:: MIT Press.
    Even though I personally don't agree with reading a book as the reading group, this is a good book to read **if you decide to do so in 2022.**

5. I have no idea how to address the <mark>orange comment</mark>. Hopefully, the 2022 reading group organizer will figure out a solution.