

## DSC 210: Numerical Linear Algebra (FA'24)

In this homework, we ask you to rehearse your final presentation with another group (we call it the Partner group in this doc) and have the opportunity to improve your presentation skills based on the feedback from your fellow students.

Please submit the feedback form following the timeline table in the Course project doc (**due Dec 10, 2024 Tuesday 1:00 PM**)

### Instructions

- Below are some evaluation criteria on the presentation:
  - a. Slides presentation
    - Does it contain all the important slides, if not, what is missing?  
Yes, it seems like they covered all the points, and the slides are professionally presented.
    - Clarity of the presentation  
The presentation was very clear, making it easy for us to grasp the concepts presented. They effectively balanced both overarching descriptions and detailed mathematical formulation.
  - b. Contents
    - Does it cover the important information, if not, what is missing?  
Yes, I was able to comprehend the fundamentals of SVD, BPR, and Bert4Rec from the presentation. The group did a fantastic job outlining the benefits and drawbacks of each approach. The cutting-edge Bert4Rec algorithm was also really well-written and addressed the overview of recommendation systems algorithms. Additionally, they presented their main equations in an understandable and tidy manner.
    - Does it summarize the key ideas and results clearly?  
Yes, their descriptions of their trials and findings for SVD, BPR, and Bert4Rec were excellent. Using a number of comparison metrics, they were able to illustrate the distinctions between different recommender system methodologies.
    - Does it compare the methods properly?  
Yes, their results show a side-by-side comparison of the methodologies, clearly describing the differences.
    - Does it point out the limitations and challenges of the methods?  
Yes, they have a detailed slide describing the cons of SVD and BPR, and they frame up the path towards Bert4Rec.
    - Is it clear and coherent?  
Yes, the presentation is coherent and clear.
  - c. Time control
    - Is it on-time (~10 min)  
They ended at about 11 minutes, they'll likely get it on time in the next try.

- Please summarize the partner group's presentation in a short paragraph, and list what are the good things and what are the things that can be improved.
  - a. Please follow the above (a)-(c) evaluation criteria and answer the questions
  - b. Besides evaluation (a)-(c), please summarize your comments and give at least 3 good things and 3 to-be-improved things for the presentation

All things considered, the team did a fantastic job outlining their linear algebraic method of SVD and BPR implementation as well as the cutting-edge strategy of using Bert4Rec for recommendation systems. They presented the equations they used in a straightforward and concise manner. In order to improve prediction accuracy, they explain how deep learning techniques and Bert4Rec are used to enhance recommendation systems. They presented the setup and findings of their experiment in a neat manner and offered comprehensible graphs to help visualise the test outcomes. Their explanations were concise and easy to understand, and their presentation on the subject was well-considered. My only suggestion would be to

