18-755: Networks in the Real World
Fall 2022

Milestone 1: Presentation and Report

This milestone consists of two components: a project presentation (**3 minutes** presentation for 1-person groups, **5 minutes** for 2-person groups, and **7 minutes** for 3-person groups) and a two-page report describing your approach and preliminary results.

The in-class **presentations** will take place on **Monday 10/3/22**, **Wednesday 10/5/22, and Monday 10/10/22** – the detailed presentation schedule will be available on Canvas. The presentation slides must be submitted by **11:59pm (ET for Pittsburgh section and PT for SV section) on the day** *before* **your presentation**. This deadline is for us to compile all slides and prior to class, in the event that there are any technical issues, and may result in a 20pt deduction on the presentation portion of this assignment if not met.

The **report** is due on **Tuesday 10/11/20 by 11:59pm (local time)**. This will allow you to possibly incorporate the feedback received during your presentation into your report.

The **project presentation** should provide the following information:

- *Cover slide*
  - Project title and author(s)
- *Overview of the project*
  - What is the problem?
  - What are the main tasks?
- *Approach*
  - What does your network (nodes/links) consist of? Explain the input data used to build the network.
  - Explain the main steps of your approach
  - Comment on main assumptions; use a small example to illustrate the main ideas, as appropriate.
- *Preliminary results*
  - Present preliminary results (e.g., show the network and some early results using it)
  - Comment on challenges, anticipated difficulties, possible solutions.
- *Timeline and division of labor*
  - What is the proposed timeline for the remainder of your project and what do you plan to do for milestone 2?
  - What is each member's contribution to the project (for multi-person teams)?
- *Conclusion and References*
  - Summarize the project
  - Include some starting pointers (e.g., papers, websites, info/datasets)

Remember that the quality and contents of slides, overall timing of your presentation, and clarity of examples presented are all very important for conveying the key points to audience. We recommend having 6-7 slides but you may decide to structure your presentation however your see best. Note, however, that we will cut you off at the **maximum number of minutes** allotted for the number of people in your group so make sure to practice and prepare ahead of time.

Additionally, you will need to provide written responses to questions from your peers within 24 hours after the presentation. Details on this process will be sent out prior to the presentations.

For the **project report**, you should include the following information in a two-page paper (two-column format, 10 or 11pt font size, single spaced lines – including text, figures, tables, references, etc.):

1. Title of the project and author(s)
2. A short abstract (up to 75 words)
   - Provide an overview of the project, approach, results.
3. Introduction and motivation
   - Give a short (informal) description of your problem.
   - Summarize the main objectives.
4. Previous work
   - Discuss some prior work that relates to your project and focus area.
   - How does your approach relate to this prior work? Try to put your work into perspective.
5. Approach
   - Describe your approach. How do you build the network(s)? What do nodes/links consist of?
   - What are your assumptions?
   - What are the main research questions in this project? Use a small example, as appropriate.
6. Experimental setup and results
   - Show some preliminary results.
   - Explain the significance of your results. Do they make sense?
7. Conclusion and short-term plans
   - Summarize your main ideas and findings.
   - What are your plans for Milestone 2?
   - Specify each member's contribution (for 2-person and 3-person teams)

Also, check the materials posted on Canvas for report templates. And remember, you need to keep the report within 2 pages (*including text, figures, references, everything)!*

Last but not least, the points breakdown for this milestone (150 pts total):

- Project presentation: 50 pts (overview: 10 pts, approach: 20 pts, preliminary results: 10 pts, timeline: 5 pts, Q&A: 5 pts)
- Project report: 100 pts (introduction: 20 pts, prior work: 20 pts, approach: 30 pts, preliminary results: 20 pts, writing style: 10 pts)

Good luck!