18-755: Networks in the Real World
Fall 2022

Milestone 3: Presentation and Report

Congrats! You have made it to the final milestone! This consists of 3 components: a project presentation, a final report describing your project and final results, and full project documentation containing source code and all relevant materials to your project.

The in-class **presentations** will take place on **Wednesday 11/30/22, Monday 12/5/22,** and **Wednesday 12/7/22**– the detailed presentation schedule will be available on Canvas by 11/18. The time limits for the presentations are: **4 minutes** for 1-person groups, **6 minutes** for 2-person groups, and **8 minutes** for 3-person groups. All students in the group are expected to present.

For these presentations, you have more flexibility and control over their format! You can choose between traditional slides, slides + demo, poster + demo, or any other TA approved format. During your pre-milestone 3 project meeting with the TAs, you should discuss and finalize your desired format but keep in mind that whatever format you choose should be able to be streamed to the other campus. For this milestone, you will not need to submit your materials ahead of time. But be sure you've tested your plan beforehand– unlike previous presentations we will cut you off at the time limit to ensure that everyone has time to present.

The **project presentation** should cover:

- *Brief reminder of the project goal*
  - What is the problem?
  - What are the main tasks?
- *Brief overview of prior work*
  - Put your project into perspective.
- *Brief reminder of the approach*
  - Cover the main steps of your approach.
  - Comment on main tasks and assumptions.
- *Results*
  - Present your main results.
  - Comment on limitations and possible solutions.
- *Conclusion & Future Work*
  - Summarize your main ideas and findings.
  - What is the impact of your work?
  - What are possible future extensions of your project?
- *Contributions & Lessons learned*
  - Briefly indicate who did what (for 2- and 3-person teams)
  - What did you learn through this project?

The **final report and project documentation** are due on **Friday 12/9/20 by 11:59pm**.

Your **project report** should include the following information in an up to 5-page paper for 1-person teams, 7-page paper for 2-person teams, and 9-page paper for 3-person teams (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. Abstract (~150 words)
   - Provide an overview of the project, approach, results.
3. Introduction and motivation
   - Present the big picture. Give an informal description of the problem.
   - Summarize the main objectives and mention what is novel or exciting about your approach.
   - Describe the motivation and impact of your project.
4. Previous work
   - Discuss prior work that relates to your project and focus area (at least 3 references for 1-person teams, 4 for 2-person teams, and 5 for 3-person teams)
   - How does your approach relate to and/or improve or expand on this prior work? Put your work into perspective.
5. Approach
   - Describe your problem formulation. What is your approach? Assumptions?
   - Explain your methodology. Use simple examples to illustrate your ideas.
6. Results
   - Present your main results (tables, plots, diagrams, visualizations, etc.) and explain their significance.
   - Comment on limitations and possible solutions.
7. Conclusion and future work
   - Summarize your main ideas and findings.
   - Define the impact of your work.
   - Comment on possible future extensions of your project.
8. Contributions and lessons learned
   - Specify each member's specific contributions (for 2- and 3-person teams).
   - Reflect on your main takeaways and lessons learned from this project.

Your **project code and documentation** should include detailed comments at source code level such that various algorithms, data structures, and dependencies in your program can be easily understood. Also, you need to provide a separate README file about how to compile and use your software. In the README file, clearly describe what the meaning and allowable values of different parameters are.

Last but not least, the points breakdown for this milestone (250 pts total):

- Project presentation: 75 pts (overview/prior work: 10 pts, approach: 15 pts, results: 30 pts, conclusion and future work: 15 pts, Q&A: 5 pts)
- Final report: 150 pts (abstract/intro: 15 pts, prior work: 15 pts, approach: 40 pts, results: 50 pts, conclusion and future work: 15 pts, contributions/lessons learned: 5 pts, writing style and overall quality: 10 pts)
- Project code & documentation: 25 pts. All source code should be submitted within a zip folder called team_[#]_project_code.zip.

Good luck!