EECE 5642 Data Visualization

Final Project
Instructor: Ms. Yu Yin
TA: Mr. Lichen Wang, Room 427, Richards Hall, Email: wang.lich@northeastern.edu
Proposal Date: **Mar. 29, 2021**
Presentation Date: **Apr. 12 - 22, 2021**
Report Submission Due: **05:00 pm Apr. 29, 2021** via Canvas (*no extension*)

Overview

The final project has two options: **visualization demo design** or **software tool design**. The basic idea of the two directions is the same which is to collect some scientific data and visualize them. The demo design mainly focuses on the visual animations, 2D/3D graphics, video making, and computer vision based visualization techniques. The tool design is mainly to design and implement a visualization tool that can analyze the data with any kind of visualization concepts or formats, summarize some useful results/conclusions, answer questions, and provide suggestions or comments. The data should be real data, which can be either collected by individual or borrowed from somewhere (with permission and acknowledgement). Students can use any API or programming language they like.

To grade the final project, three aspects will be considered. 1) proposal presentation (20%); 2) final project presentation (30%); 3) final project report (50%).

Proposal (20%)

Each team needs to prepare about 3-4 slides for proposal. The first slide will show your project title and some information about your team members. The following slides would show what is the problem and why you want to solve it (also known as motivation). You will have 3-5 minutes to present. Presentation will be given in the order of group names.

We also provide one sample about the proposal in Canvas. It's just a sample. You don't need to make your slides exactly the same as the sample.

Presentation (30%)

Each team will have 8-10 minutes for presentation and questions. You can prepare about 10 slides. Here are some example contents regarding the whole slides that may help your preparation.
1.Project title.
2.Team members' names, affiliations, and emails.
3.What's the problem.
4.Motivation for the project.
5.Data source and background.

6.Tools (e.g., programming language) used in the project.

7.Contributions of the work.

8.Novety of the work.

9.Visualization techniques (e.g., tables and figures).

10.Future works.

11.Additional comments.

12.References (including some papers, source code links, etc.).

13.Contributions of each member (It would be hard for each member to present the corresponding parts of slides. Instead, you can just show the contributions of each member in the slides).

We will also provide one sample about the presentation in Canvas.

Report (50%)

The report length should be within 4 to 6 pages, by any standard report template (e.g., the [NeurIPS template](#)). Latex is recommended to edit your report (e.g., [Overleaf](#)). The report mainly aims to summarize the contents in your presentation slides. For the report, you should avoid copying the content from previous report directly. Plus, uploading your software package is optional.

The final report is the only thing that you need to upload it to Canvas. All members in the same team can share the same report and submit it individually.

You should name your file as
Proposal_TeamNumber_LastNameOfEachMember.pdf
The team number is available:
https://docs.google.com/spreadsheets/d/1WnpYlBhm8hPB1itQLMTtBOESVI27G0FBTeHFxT4DlN8/edit#gid=413671913