

University of Utah School of Computing

CS 6965

Project #5

Spring 2018

Due April 19, 2018 at the start of class.

Project 5 is an additional bonus mini project, with a total of 15 possible points (in addition to points you earn from other projects).

You are encouraged but not required to complete Project 5.

Project Description

This is a bonus project to support the Network Visualization Module of the class.

It consists of 3 tasks:

- Task 1. (5 points) Create a visualization of **any** data set chosen from CASOS networks using D3.js using force-directed layout with D3.js:
<http://www.casos.cs.cmu.edu/tools/data2.php>.
For example, the USAir97 dataset:
http://casos.cs.cmu.edu/computational_tools/datasets/external/USAir97/index2.html.
- Task 2. (5 points) Either change the parameters associated with the force-directed layout of Task 1; or use a different graph layout techniques (many have been discussed in class), to generate a new visualization of the same dataset as Task 1.
- Task 3. (5 points) Visualize the same dataset as Task 1 and Task 2 chosen from CASOS networks using edge bundling and D3.js.

Hints

There are many available tutorial online for creating network visualization with D3.js. For instance:

- <https://bl.ocks.org/mbostock/7607999>
- <http://www.d3noob.org/2013/03/d3js-force-directed-graph-example-basic.html>

While you are welcome to follow these tutorials as part of the learning process for D3.js, your implementation should be of your own.

Submission

The project will be graded based on a report completing the above tasks. Please include a description of your visualization; provide a **link** in your report where your visualization is deployed; if that is not available, please provide at least screen shots describing the functionality of your visualization.

Project 5 is to be submitted as a PDF via Canvas.

Grading

The bonus project will be graded as follows.

For each task (5 points):

- 1 point for description of the visualization design, including parameter settings and the dataset used.
- 4 points for having a running and deployed prototype (please provide a link for the deployed visualization). As a partial credit, 1 point for having a static screen capture of the visualization (without a deployed version). There will be no partial credit if there is no visualization available; or if the code does not run.

Please feel free to contact the instructor if you have any questions.