ProgrammingProject

Help

You can submit your project here. Here are the options for this assignment and how you will be evaluated by your peers. You should choose only 1 option for this assignment.

Option 1: empirical network analysis. Task: find data, analyze data (and visualize it), then interpret. You will be evaluated by your peers as follows:

- Obtaining data (8 points total)
  1. 2 pts: documentation of how data was obtained (newly assembled or existing data) + source code if applicable
  2. 2 pts: explanation of criteria for inclusion of nodes and edges
  3. 4 pts: subjective interestingness/originality of the subject of data collection
- Data analysis (17 points total)
  1. 3 pts: were at least 3 metrics/methods from the course applied to the data?
  2. 4 pts: were they applied/interpreted appropriately
  3. 2 pts: was at least one additional technique, not covered in the course materials, applied to the data?
  4. 5pts *Visualization*: Did the visualization add to your comprehension of the data?
  5. 3 pts: was code/step by step instructions provided such that one could replicate the methods?
- Interpretation (5 points)
  1. 2pts: were limitations of the data correctly addressed?
  2. 3pts: did the analysis yield new insights (subjective)

Option 2: Simulation of network model (growth or process). Come up with a model, simulate it, compare it against an existing model and see what kinds of insights you obtain.

- Constructing model (10 points total)
  1. 5 pts: documentation of how model works, the parameters, and assumptions and source code
  2. 5 pts: subjective evaluation of originality of the model
- Model testing (15 points total)
  1. 4 pts: were at least 2 different characteristics of the model measured
  2. 5 pts: was a comparable existing model chosen and simulated?
  3. 3 pts: was an informative comparison drawn between the two models?
  4. 3 pts: was code/step by step instructions provided such that one could replicate the evaluation?
- Interpretation (5 points)
  1. 2pts: were limitations of the model correctly addressed?
  2. 3pts: did the analysis yield new insights (subjective)

Option 3: Network algorithm: come up with an algorithm (e.g. ranking, community finding)

- Constructing algorithm (10 points total)
  1. 5 pts: documentation of how algorithm, the parameters, and assumptions and source code
  2. 5 pts: subjective evaluation of originality of algorithm
- Model testing (15 points total)
  1. 4 pts: were at least 2 different measures of algorithm performance given/plotted?
  2. 5 pts: was a comparable existing algorithm chosen and evaluated?
  3. 3 pts: was an informative comparison drawn between the two algorithms?
  4. 3 pts: was code/step by step instructions provided such that one could replicate the evaluation?
- Interpretation (5 points)
  1. 2pts: were limitations of the algorithm correctly addressed?
  2. 3pts: did the analysis yield new insights (subjective)

Peer review question for all 3 options:

Do you think this project should be featured in the last lecture?

Created Sun 30 Sep 2012 6:54 PM EDT

Last Modified Sun 6 Oct 2013 11:17 PM EDT