CSE 316 – Social Network Analysis

Final Project – Part 1

Due Monday, April 7th 10:15am – In Class

This is an individual assignment, worth half of your final project grade (7.5%).

You will pick three related technical papers corresponding with material we’ve done in class, and write a coherent ‘reaction paper’. At a minimum, you should address the following questions. Please don’t just give a list of answers. [If you really wish, you can include an additional paper, but ideally you will select three].

The paper should be between 2000 and 3000 words. You should have a list of references at the end (which is not necessarily limited to the papers you discuss). Anything you look up online should be included in the references, including pages like Wikipedia.

The format of the paper is completely up to you. See below for some example papers from Stanford University.

The other part of the final project involves analyzing a data set, coming up with tests, etc. While the two parts of the projects need not be related, it may be beneficial if they are. (If you understand a topic well by doing this paper, it is likely your analysis paper will take less time and be of a higher quality).

**Questions You Must Answer:**

**Summary**

What is the main technical content of the papers?

How do the papers related to the topics presented in the course?

What is the connection between the papers you are discussing?

**Critique**

What are the strengths and weaknesses of the papers, and how are they addressed?

What were the authors missing?

Was anything particularly unrealistic?

**Brainstorming**

What are promising further research questions in the direction of the papers?

How could they be pursued?

Do you have an idea for a better model, algorithm, test, etc.?

The papers should **NOT** just be a summary of the papers you read. The paper should includes at least some amounts of the following:

* A test of a model or an algorithm (that you have read about or your own) on a dataset or on simulated data.
* A proposal for a model or algorithm that potentially extends or improves the topics discussed in the papers you've read.

[Credit to Dr. Jure Leskovec at Stanford University]

**Important Links**

You may view some sample papers from students at Stanford. Keep in mind the following when reading these papers:

1. Stanford’s course is a graduate course
2. There were groups of three
3. Stanford’s students had to include a project proposal with their reaction paper, which you do not have to do

[Data-driven Outbreak Detection in Social Networks](http://www.stanford.edu/class/cs224w/proposal_examples/cs224w-026-proposal.v02.pdf)

[Categorization of Wikipedia Articles](http://www.stanford.edu/class/cs224w/proposal_examples/cs224w-031-proposal.pdf)

[Information Network Search Why do humans abandon Wayfinding?](http://www.stanford.edu/class/cs224w/proposal_examples/cs224w-046-proposal.pdf)

[Rigorous Analysis of Kronecker Graphs and their Algorithms](http://www.stanford.edu/class/cs224w/proposal_examples/cs224w-049-proposal.pdf)

[Teamwork Across Github Communities](http://www.stanford.edu/class/cs224w/proposal_examples/cs224w-052-proposal.pdf)

The below links from Stanford and Cornell may be helpful in finding papers (they include 100s of links to papers, sorted by category). Although we aren’t covering the background material of many of these papers in class, you may still choose to write about them. You may also want to find papers using other resources like Google Scholar, IEEE Xplore, etc.

<http://www.stanford.edu/class/cs224w/handouts.html>

<http://www.cs.cornell.edu/Courses/cs6850/2008fa/>

**Grading**

Above all, I am looking for your papers to be more than summaries of what you read. While the summary and critique parts of the questions above are important, the brainstorming part is where the bulk of your grade will lie. While you do not have to actually do any of the improvements you suggest, someone should be able to do them (i.e. it would be nice to say I’d like to end world hunger, but it’s unlikely that someone will actually be able to do it).

Top scores will go to well thought out papers. While the format of your paper doesn’t matter, your ability to write and express your thoughts clearly is important.