

# Social Network Analysis for Computer Scientists

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Code review session

#### In the next weeks ...



- Finish writing code
- Run experiments
- Evaluate results
- Write remaining sections of the paper
- Dec 9: project deadline
- Report any questions, issues, difficulties or problems





- Peer review: evaluation of work by one or more individuals with similar competence
- "Pair programming"
- Four eyes see more than two
- Go beyond your current knowledge and skills
- Output: list of "best practices"





- Explain your work to the other team
- Mention what you have done and not yet done
- Introduce the other team to your code
- Ask questions about the other team's code
- Explain to the other team positive and less positive constructive points about their work
- Together, derive useful "best practices" and add them to the Google Doc (see website)

### Evaluation criteria



- Correctness guarantees
- Time and memory constraints
- Are input and output data validated for consistency?
- Is the output easily reusable for result tables or diagrams?
- Is there a pipeline of experiments to run different algorithms on different datasets?

## About the Data and Experiments



- Is the data relevant and sufficient?
- Is the data "diverse" in relevant dimensions?
- What do you measure in each experiment? Quality, running time, error?
- Why is this data good for these experiments?
- Is the data possibly biased and how may this affect the experiments?

#### Remember . . .



#### Please be constructive!

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# Team pairs



Sampling methods	Resilience
Closeness centrality 1	Closeness centrality 2
Network embeddings 1	Community detection 4
Neighborhoods	Community detection 1
Community detection 2	Community detection 3
Anomaly detection	Influence spread 2
Link prediction	Signed link prediction
Influence spread 1	Network de-anonymization
Betweenness centrality 1	Network data errors
Visualization 2	Motifs in temporal networks
Shortest paths 1	Shortest paths 2
Motifs in multilayer networks	Motifs in networks
TBD	Personalized PageRank