

CS185C, Section 2: ADVANCED PRACTICAL COMPUTING TOPICS

Social Networks

Course description:

The rise of the Web and social media has created complex computing systems in which the technological as well as the human-imposed challenges require new approaches. In this course we will study such modern social computer networks, by unifying tools from different disciplines such as computer science, economics and social sciences. We will cover **graph theory, game theory and mechanism design, information networks and search, social dynamics, aggregate behavior, ad auctions, voting, cascading** etc. Prerequisite: CS146.

Textbook: Networks, Crowds, and Markets: Reasoning About a Highly Connected World, 1st Edition by David Easley and Jon Kleinberg (2010).

Software:

<https://gephi.github.io/>

<http://ccl.northwestern.edu/netlogo/index.shtml>

<https://www.r-project.org/>

Example of a co-authorship network

