Social Network Analysis for Computer Scientists

Frank Takes

LIACS, Leiden University
https://liacs.leidenuniv.nl/~takesfw/SNACS

Lecture 0 — Course information
About this course

- **Social Network Analysis**: understanding data from a network perspective, studying interactions in social, economic, organizational, technological and other real-world networks.
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- **Social Network Analysis**: understanding data from a network perspective, studying interactions in social, economic, organizational, technological and other real-world networks.

- **for Computer Scientists**: focus on methods, algorithms, data structures, mining descriptive insights and developing predictive techniques to understand real-world (social) network data.
Figure: Online social network.
Figure: Network of the internet.
Figure: Protein interaction network.
Figure: Economic network of Sweden’s interlocked corporations.
Course information

- Lectures: Fridays, 11:00 to 12:45 in Gorlaeus C1
- Lab sessions: Fridays, 9:00 to 10:45, Snellius 302/304, etc.
- Prerequisites: CS bachelor with courses such as algorithms, data structures and data mining
- Course website:
  https://liacs.leidenuniv.nl/~takesfw/SNACS
- Mandatory registration via uSis/Brightspace; course name 2324-S1 Social Network Analysis for Com... or:
  https://brightspace.universiteitleiden.nl/d2l/home/239768
Course format

- ca. 13 weeks: presentations by lecturer in first half of semester and by students teams in second half of semester
- No book (we use recent papers, and free textbooks), no exam
- > 4 P's
  1. Presentation
  2. Participation (including Presence)
  3. Programming
  4. Paper (with some Peer review and Code review)
- On-site course without “online backup”
- For lab sessions we use the Snellius computer rooms; you can also use your laptop
Examination

- Final grade is based on 3 subgrades for:
  - Homework assignment 1 (individual) 20%
  - Homework assignment 2 (individual) 20%
  - Project (presentation and paper, in teams) 60%

- All 3 subgrades have to be $\geq 5.5$

- Failed assignments can be retaken by making the extra assignment (1 failed assignment: maximum grade 8.0. 2 failed: maximum 6.0)

- Failed projects can be retaken by meeting the project retake deadline (maximum grade: 7.0)

- Final grades are rounded to nearest element in
  \{1, 2, 3, 4, 5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10\}

- Rounding based on Participation

- 6 ECTS
Course team

- Lecturer: dr. Frank Takes
  f.w.takes@liacs.leidenuniv.nl, room 157b
- Assistant lecturer: Hanjo Boekhout MSc, room 126
- Assistants:
  - Rachel de Jong MSc, room 152
  - Marton Menyhert MSc
  - Shaoxuan (Anthony) Zhang
  - Chao Zhao
- Course email address: snacs@liacs.leidenuniv.nl
Before we start . . .

- All deadlines are hard and already set (see schedule on website)
- Team work should be balanced
- Individual assignments must be made alone

Plagiarism = instant removal from course

You are expected to know the regulations: do not copy from other students, do not copy from the internet.

After each Monday assignment deadline, on Thursday 10 random students are invited for a short interview during the Friday lab session.

Ask questions, many if you have to

Yes, we like it if you ask questions!

Feel free to provide feedback or correct errors in slides

Discussion is welcome!

Have some fun.
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