Seminar Advanced Algorithms and Data Structures

Peter Widmayer
Stefano Leucci
Przemysław Uznański

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Agenda

- Goals of the Seminar
- Logistics
- Topics
- Next Steps
- Grading

Goals of the Seminar

- Get a deep understanding of an advanced topic/paper in algorithms/data structures
- Focus on one technical paper/topic (**NOT**: an overview of ten papers!)
- Give a talk on this paper, write a manuscript, lead the discussion
- Act as a buddy to another student (read paper, read report, give feedback)

Prerequisites

Good understanding of:

- algorithms,
- data structures,
- and probability.

Topics Preference

- Topics are online.
- You should know your preference.
- We will use RSD to assign 1) topics and 2) buddies.

Next steps (1/3): topics

- We assign you topics today.
- We use RSD to assign topics to students
- We will assign advisors (topic-based) and dates (random/common sense) **later**.
- We publish/send you the list of all assigned topics and advisors.

Next steps (2/3): buddies

- We assign buddies (using common sense) by 06.10.2018.
- Buddy is responsible for quality of his partner talk/manuscript.
- We will make sure to balance speakers/buddies among two Saturdays.

Next steps (3/3): preparing manuscript + talk

- Read your paper (and related papers)
- Write manuscript $(4 - 8$ pages) on how would you present it: motivation, formal model, interesting proofs, main results
- Send your manuscript to buddy + the advisor 3 weeks before your talk
- Meet with the advisor and buddy ~ 2 weeks before the talk
- submit final version of manuscript 1 week before the talk (STRICT)
- prepare talk, rehearse with buddy
- talks: blackboard talk (30min) + lead discussion (10min) on:
  - Saturday November 03
  - Saturday November 10
  - Saturday November 17
- NO SLIDES

Important dates (Tentative Schedule)

October 13: Deadline Manuscripts 1st Seminar

October 20: Deadline Manuscripts 2nd Seminar

October 27: Deadline Final Manuscripts 1st Seminar

October 27: Deadline Manuscripts 3rd Seminar

November 3: **1st Seminar**

November 3: Deadline Final Manuscripts 2nd Seminar

November 10: **2nd Seminar**

November 10: Deadline Final Manuscripts 3rd Seminar

November 17: **3rd Seminar**

Grading

In order of importance:

- Presentation
- Manuscript
- Buddy
- Active Participation

Useful link on how to read papers and give talks:
http://cs.stanford.edu/~rishig/courses/s14.html