Data Science Seminar 2016: Prediction and Trend Analysis

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https://diuf.unifr.ch/xi/ds/

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eXascale Infolab

Contents

Goals of the Seminar

- Gather in-depth knowledge of an advanced topic/paper in data science.
- Focus on one technical paper/topic.
- Learn how to critically read and study a research paper.
- Describe a paper in a report and present it in front of an audience.

Contents

Requirements and Organization

- Good understanding of algorithms and data structures.
- Write a report (first version and last version) of max 10 pages.
- Make a presentation of 20 min.
- Presentations will be split into two seminar sessions by the lecturer.
- Participants have to attend both sessions.
- Total seminar attendance will be limited to 10.

Contents

Final Grade

- Quality of the first and the last versions of the report.
- Quality of the presentation.
- Reproducibility experiments (if any).
- Active seminar participation.

Contents

How to write the report

- The report should reflect your understanding of the paper and not a rephrasing/summary of the paper.
- The structure of report might not follow the same structure of the paper.
- Explore extreme cases: the report might contain your own small running example and counterexample (that illustrate how the proposed solution works).
- Replot figures that describe the proposed technique, redefine complex formulas, add algorithmic description, etc.
- Hints: `https://cs.stanford.edu/~rishig/courses/ref/paper-reading-technical.pdf`

How to prepare your presentation

- The presentation should explain the proposed contribution(s) and not summarize the report/paper: what do I need to describe in order to explain the proposed solution?
- The presentation should follow a coherent structure and not the structure of the paper.
- An animated example helps to better explain the steps of the proposed solution.
- A 5 min demo of the proposed solution will be presented if the paper is marked with reproducibility experiments (the code is available online).
- Hints: `http://matt.might.net/articles/academic-presentation-tips`

Contents

How to proceed/1

- Enroll to the seminar via `http://ilias.unibe.ch` (if not done yet).
- Select a paper among the set of proposed papers (available on the seminar website as of Wednesday, September 28 at 00:00).
- The papers will be distributed in FCFS basis.
- Enter your time preferences for the two sessions of the Data Science seminar (the poll will be sent on ILIAS).

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How to proceed/2

- Prepare the first draft of the report and send it two weeks before your talk.
- Meet with the lecturer 1 week before your talk.
- Participate actively in the discussions of the other talks.
- Send your final report before the final deadline.
- Stay tuned in to the seminar website: `https://diuf.unifr.ch/xi/ds/`. All deadlines will be added.

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