Course Logistics

Yuekun Yao

Instructor

Yuekun (ykyao@lst.uni-saarland.de)

Course Format

- Weekly paper presentation & discussion

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  - Lead and organize the discussion
  - Answer questions from the audience
- Active participation expected from all students
  - Read the paper and prepare questions

Course Schedule

Registration

- Register the examination of this course
- Send an email to ykyao@lst.uni-saarland.de to indicate up to 3 papers you are willing to present
  - use the subject [LLM reasoning seminar]
  - Before next Monday (April 21st)
  - The schedule is subject to change. We may adjust the schedule according to the number of people willing to present.

Evaluation

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For students taking the seminar for 4 credits:

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Presentation: 60%
Participation in discussion: 40%
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For students taking the seminar for 7 credits:

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Presentation: 30%
Participation in discussion: 20%
Term paper: 50%
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Term Paper

- Survey paper
  - Focus on one area including 2-3 subareas
  - Show your own insights
  - Check published survey papers as references

Term Paper

- Survey paper
  - How to find relevant papers?
    - You do not have to include papers discussed in the class.
    - Google scholar
    - Related work in an existing paper
    - Survey paper
      - https://aclanthology.org/2023.findings-acl.67/
      - https://github.com/atfortes/Awesome-LLM-Reasoning
      - https://github.com/hijkzzz/Awesome-LLM-Strawberry
      - https://arxiv.org/abs/2504.10903
    - Social media

Term Paper

- Survey paper
  - How to select papers?
    - You don't need to include all relevant papers
    - Identify limitations of research in your area and select important papers that address the limitations.
    - Preferably papers published on good NLP or ML conferences. Very recent arxiv papers are also possible.

Term Paper

An example structure

- **Introduction**: Define the scope of your paper, the motivation to study it and the key research questions or challenges.
- **Background**: Provide a brief literature review or background knowledge the readers need to know before diving into the main body.
- **Main body of your survey or replication**: For the survey paper, you do not need to cover all relevant works on the topic, but you should include at least 2 or 3 important ones. You are also responsible for searching and selecting relevant papers on your own. For the replication paper, introduce what you did and report results.
- **Discussion**: Compare methods and results (for survey papers), or analyze your findings (for replication papers). Discuss what has been addressed and what remains open.
- **Conclusion**: Summarize the key takeaways and include potential future directions in your mind.

Term Paper

- Replication of an existing paper or an independent project
    - Ask your own research questions
    - Design experiments to investigate the questions
    - Check relevant papers as references
    - GPU resource

Term Paper

- Always feel free to reach out.

Office

Building C7 2, R. 2.04

Wednesday 4-5pm

Presenters are expected to reach out at least one week before their presentation to discuss progress

QA