Guided Exploration for Scalable Analytics Research

Course: CS535, Big Data
Instructor: Sangmi Pallickara

Overview
The CS535 GEAR Workshop is designed to provide a guided learning environment for advanced topics in Big Data analytics. GEAR involves active participation from students. The class will involve lectures discussing fundamental concepts of the targeted topic and about 25% of the class will be based on student-led research discussions. Students will provide a critical review of cutting-edge research papers. These discussions provide students an opportunity to extend their knowledge and concepts covered in the lectures to real-world problems, and further explore future research directions.

1. Instruction

Each team should sign up for 1 paper as a presenter. Also, each team should sign up for 2 papers as a reader. Please note that you should select a total of three different papers for the GEAR workshop series.

For the papers that you have chosen, your team should submit critical reviews. There will be a total of 3 review submissions for your team this semester. You can download papers via publishers’ web pages. Note that CSU subscribes to all of the publishers of the listed papers. Therefore, you will need to access the sites when you are on a CSU network.

1.1 Instructions for Presenters
For the paper you selected as a presenter, your team should submit a critical review (See the section 1.2) and provide a presentation (~25 minutes) to the class. As a presenter, your team is expected to,

(1) Provide detailed information about the paper and answer questions
(2) Cover all aspects of the critical review
(3) Lead the discussion and encourage class participation
(4) Summarize the discussion at the end of the presentation

All team members must participate in the presentation session. Failure to do so will result in deductions.
1.2 Instructions for the Reviewers
For the paper you selected as a reader, your team should submit a critical review. Submission should be via Canvas.

Writing a Critical Review
Each review should be up to 2 pages and an additional page of references (if needed). The Critical Review should include answers to the following questions:

1. What problem did the paper address?
2. Is it important/interesting? Why is this problem important/interesting? What was the context for the paper? Why should the audience care?
3. What is the approach used to solve the problem?
4. How does the paper support or otherwise justify the conclusions it reaches?
5. What problems are explicitly or implicitly left as future research questions?
6. What are the advantages of the proposed approach?
7. What are the weaknesses of the proposed approach?

1.3 Grading policy
The workshop points breakdown is the following:

- Presenting the paper with a written review: 8/20
- Reading the paper with a written review: 5/20. (x 2 papers)
- Peer-evaluation for participation 2/20

Your participation in the discussion will be accounted for your score. This includes questions and comments. Please make sure that your comments are constructive.
2. Workshop Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Paper</th>
<th>Presenter</th>
<th>Reader 1</th>
<th>Reader 2</th>
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<tbody>
<tr>
<td>Workshop I: March 11</td>
<td>[I-1]</td>
<td>Chicago</td>
<td>Reno</td>
<td>Portland</td>
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<td></td>
<td>[I-2]</td>
<td>Denver</td>
<td>Memphis</td>
<td>Seattle</td>
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<td>Workshop II: April 3</td>
<td>[II-1]</td>
<td>Boston</td>
<td>Chicago</td>
<td>Phoenix</td>
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<td>[II-2]</td>
<td>Fort Collins</td>
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<td>[II-3]</td>
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<td>Portland</td>
<td>Memphis</td>
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<td>Workshop III: April 17</td>
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<td>[III-3]</td>
<td>Seattle</td>
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<td>Workshop IV: May 1</td>
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<td>[IV-2]</td>
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3. Reading List for Spring 2019

3.1 Workshop I


3.2 Workshop II
doi: 10.1109/ICDE.2008.4497463


3.3 Workshop III


3.4 Workshop IV
