CS 8331 - Data Mining

Guidelines for preparing and presenting the tutorial

Every student will prepare and present a tutorial.

Definition of Tutoial: *"A **tutorial** is used to teach material. More interactive and specific than a book or a lecture; a tutorial seeks to teach by example and supply the information to complete a certain task."*   *- Wikipedia*

Tasks

1. You need to sign up for a date for your tutorial. Note that students who present earlier get a bonus.
2. Each student has to select a topic **by week 2** (some suggestions can be found below). I will meet with each student individually to discuss the chosen topic.
3. You need to prepare a 1/2 page abstract for your tutorial which explains the importance of the topic and what is covered in the tutorial. The abstract is **due the day before your tutorial.**
4. The tutorial should cover 45 minutes and give the students an opportunity to appreciate the goals and the special challenges in the chosen area, the key methods (with advantages and disadvantages), applications and a list of key references (5 or more carefully chosen books, conference or journal articles including survey articles) where the student can read about the topic in detail. The tutorial needs to engage the listeners with questions, include hands-on examples with software, and, if possible, small exercises.
5. Email slides (in pdf format) to me right after your tutorial.

Some Suggested topics

- Special Clustering Methods
- Special Classification Methods
- Dimensionality Reduction
- Ensemble Methods
- Graphical Models (Bayesian Networks)
- Graph Mining
- Privacy-preserving Data Mining
- Recommender Systems
- Social Network Mining
- Time Series Prediction
- Text Mining
- Web Usage Mining
- Special application areas

Grading

You are graded using the following categories:
- Abstract (10%)
- Difficulty of topic (10%)
- Clear definition of problem area (10%)
- Technical detail (40%)
- Applications (10%)
- References (10%)
- Presentation style and support (10%)

Distance students

Distance students are required to:
1. Come in for the presentation or prepare a video presentation (using Zoom) which may be played in class. The video is due at noon on the Friday before the tutorial date.
2. Watch each tutorial and write 1/2 page (12 point font, single-spaced) summary (submitted via email). This summary should identify strong and weak points in the tutorial.