CS525 DATA MINING
SYLLABUS

YÜCEL SAYGIN
SABANCI UNIVERSITY
Contact Info

- ysaygin@sabanciuniv.edu
- http://people.sabanciuniv.edu/~ysaygin
Course Info

- **Reference Book**: *Data Mining Concepts and Techniques*
- **Author**: Jiawei Han and Micheline Kamber
- **Publisher**: Morgan Kaufmann
Course Info

- **Grading:**
  - Midterm: 40% (Take Home)
  - Survey Paper: 20%
  - Project: 40%
Topics that will be covered

- Different Data Mining Techniques
  - Association Rules
  - Classification
  - Clustering

- Data Mining and Privacy Issues

- Applications of Data Mining
A Rough Schedule

- February, March:
  - Lectures on various data mining techniques
- Remaining weeks: Project presentations and discussions about research issues
What I will do

- Give the basics on data mining
  - broad data mining concepts
  - research issues
- Project supervision
- Give directions and advise on the projects I proposed (will be provided in the next slides)
- Coordination of the project presentations
What I expect you to do

- I expect you to do things wrt your background and expertise.
- Students with CS background will do projects involving implementation and/or research
What I expect you to do

- Understand the basic data mining concepts
- Choose a specific area and recent related papers on the same topic
- Write a survey paper based on these papers.
- Conduct a project and write a final report describing what you learned or achieved in the scope of the project.
Projects

- Text Mining
- Graph Mining (Social Networks)
- Web mining
- Bioinformatics
- Privacy preserving data mining
- Data anonymization for data mining
- ....
Some references

- Choose the latest papers (2019-2020)
- Here are the main DM Conferences
  - ACM KDD Conference
  - ECMLPKDD Conference
  - IEEE ICDM Conference
- Other related conferences
  - WWW Conference (The WEB Conf)
  - ACM SIGIR