# Term Project Final Phase

Due: 3:00 PM Wednesday Dec 17, 2014

Instructor Wei Ding

#### Project Requirement

- **Presentation and demonstration**: Discuss and demonstrate what you have done in the term project.
- Prepare the **paper copy of your presentation** and submit it to the instructor before your presentation.
- If you did not finish your previous Term Project Part II presentation, you should first finish the Part II presentation.
- Submit the **paper copy of the software tools** you have implemented in class.
- Submit all the files of your term project to UMass Online.

## K-Means (Jia, Shaohua; Koh, Do Hyong; Kopsiaftis, Elias;

- K-Means by Joydeep Ghosh and Alexander Liu (<u>http://www.cs.umb.edu/~ding/classes/470\_670/homework/K-means.pdf</u>)
- Topic: The accelerometer data project.
- Presentation structure (each of you will have 20 minutes):
  - What is the problem you solved?
  - Why is the problem important?
  - What is your method?
  - What are your experiment results?
  - What is your conclusion--Does your method work?

# KNN (Zhuang, Yong, Chen, Si, and Donthula, Naresh)

 Chapter 8 kNN: k-Nearest Neighbors by Michael Steinbach and Pang-Ning Tan
(http://www.cs.umb.odu/~ding/classos/470\_670/homowork/obook\_Top%)

(http://www.cs.umb.edu/~ding/classes/470\_670/homework/ebook\_Top% 20Ten%20Algorithms%20in%20Data%20Mining.pdf)

- Chapter 4 Apriori by Hiroshi Motoda and Kouzou Ohara (http://www.cs.umb.edu/~ding/classes/470\_670/homework/ebook\_Top% 20Ten%20Algorithms%20in%20Data%20Mining.pdf)
- Topic: Use KNN and Apriori in an E-Commerce website
- Presentation Structure (The team should use 30 minutes to present the project together):
  - What are the real-world problems you applied the machine learning algorithms to?
  - How did you integrate the algorithms with the website?

### SVM (Singleton, Charles A)

- Chapter 3 SVM by Hui Xue, Qiang Yang, and Songcan Chen (http://www.cs.umb.edu/~ding/classes/470\_670/homework/ebook\_ Top%20Ten%20Algorithms%20in%20Data%20Mining.pdf)
- Presentation Topic: Give us 30 minutes talk on SVM including linear SVM and nonlinear classification.

Non-negative Matrix Factorization (Kang, Tianyu) Parallel and GPU-accelerated BiPart (Mohebbi, Hamidreza)

- Each of you uses 20 minutes to explain what you have done in the research projects.
- Presentation structure:
  - Introduction
  - Method
  - Experiments
  - Conclusion