**CSI5387: Data Mining and Concept Learning, Winter 2012**

**Assignment 3**

**Due Date: Tuesday March 27, 2012**

Here is a list of new themes that will be explored by this assignment:

* **Learning Paradigm:** Association Rule Mining
* **Techniques:**
  + Formulation of data mining questions of interest
  + Apriori algorithm and other rule learning algorithms of your choice
* Data Sets:
  + Choose one from one of the sites listed at <http://michael.hahsler.net/research/association_rules/>
* **Evaluation:** 
  + Evaluation metrics for association rule mining (see, for example, <http://michael.hahsler.net/research/association_rules/measures.html>)

In this last assignment, I am giving you the freedom to choose 1) the data that you want to work on; and 2) the questions that you want to ask of your rule learning extraction systems. The purpose of the assignment is to acquire some experience dealing with the association rule mining paradigm in terms of data preparation, problem formulation and evaluation of the results. (If you have worked on such problems before, like, for example, in the context of Dr. Viktor’s course that some of you are taking simultaneously, please, do not use datasets or questions that you have previously investigated. Use this assignment to go beyond what you have learned in another course or another venue).

Because you are, most likely, all working on your projects for this course and others; because there is only very little time until this assignment’s due date (I do not want to move it back since I want to give you enough time to work on your projects); and thanks to the request of one of your fellow students (you should all thank him!), I do not intend this assignment to be as time-consuming as the other two. Therefore, do not go overboard! Just do a reasonable amount of work which will convince me that you have familiarized yourself with this different paradigm and its associated issues. That is all I will be looking for in this assignment, so there is no need to push yourselves beyond that! [Do not apply this philosophy to your projects, though! My evaluation of your work in this context will be a very different story! ☺]