Fall 2009

CS 705: Introduction to Data Mining

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CS 705 Introduction to Data Mining
Fall Quarter, 2009

Description: Data mining is concerned with the extraction of novel and useful knowledge from large amounts of data. This course introduces and studies the fundamental concepts, issues, tasks and techniques of data mining. Topics include data preparation and feature selection, association rules, classification, clustering, evaluation and validation, scalability, spatial and sequence mining, privacy, and data mining applications. 3 hours lecture, 2 hours lab.

Prerequisite: CS 605 (Introduction to Database Systems), or CS 609 (Introduction to AI), or equivalent, or consent of the instructor. Implicitly, CS 600 (Data Structures) is also required.

Instructor: Dr. Guozhu Dong. 383 Joshi.

Phone & Email: (937)-775-5066, guozhu.dong@wright.edu

Class details: 4:10-5:25 MW, Russ 154

Office hours: 2:50 - 3:40, MW. Use e-mail for short questions. The instructor will also be available (in the classroom) for a short period after the classes.


Reference texts: Introduction to Data Mining, Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Addison Wesley.

Data Mining: Practical Machine Learning Tools and Techniques, I.H. Witten and E. Frank, Morgan Kaufmann.


Resources: Slides will be provided at WebCT.

Students may find this webpage useful: http://www.kdnuggets.com/, especially its pointers to datasets.

Many Java programs for data mining are available at www.cs.waikato.ac.nz/ml/weka, which you may want to install and experiment with.

Grading: Homeworks: 10%; Midterm: 25%; Final: 35%; Projects 30%.

Final grade: A=[90,100], B=[80,90), C=[70,80), D=[60,70), F=[0,60).

The projects require extensive programming. Submissions that do not compile or that do not address project requirements will receive zero or very low marks.

Handouts: Handouts, and other course material will be distributed in class. It is the students' responsibility to collect them.

Important dates:

4:10 – 5:25, Wednesday, 10/7, in-class midterm exam.

5:45-7:45, Monday, 11/16, final exam.