CS-6375 Machine Learning, Fall 2016

Saturday 1:00 - 3:45PM, Room ECSS 2.306

Instructor: Crystal Maung
Office: ECSS 4.403
Office Hours:
- Saturday: 3:45-4:45PM

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Texts

Required Text

Most of the material will be covered from class-notes with selected parts taken from sources available on the web.

There is no required text.

Other material

- T. M. Mitchell. Machine Learning. 1997.
- E. Alpaydin. Introduction to Machine Learning. 2004.
- T. Hastie, R. Tibshirani, and J. Friedman. The Elements of Statistical Learning. 2011. http://www-stat.stanford.edu/ tibs/ElemStatLearn/
- R. O. Duda, P. E. Hart, and D. G. Stork. Pattern Classification.
- Cristianini and Taylor. An Introduction to Support Vector Machines and other kernel-based learning methods. 2000.
- S. Russell and P. Norvig. Artificial Intelligence, A Modern Approach.

Important Dates

- Test 1: Thursday, October 8, 2016.
- Test 2: Thursday, December 10, 2016.
- Course Grades Available : December 16, 2016.

Grading Policy

- Homework: 10%. (Assignments will not be graded.)
- In class quizzes 10%. (Open books)
- Projects: 20%.
- Test 1: 30%. (Open books.)
- Test 2: 30%. (Open books.)

Topics

- Decision Trees
- Neural Networks
- Deep Learning
- Evaluation of Learning Algorithms
- Bayesian and Naive Bayesian Learning
- Nearest Neighbor Algorithms
- Linear Discriminants

- Computational Learning Theory
- Adaptive Boosting.
- Support Vector Machines.
- Reinforcement Learning
- Unsupervised learning and clustering

Pre-requisites

- Pre-requisite: CS-5343