
ISyE 6416 - Spring 2020

Tentative Teaching Schedule

Week #	Date	Topic
1	Jan 6, 8, 11	Introduction, basics of algorithms and statistics
2	Jan 13, 15, 17	Optimization algorithms for statistics I
3	Jan 22, 24	Optimization algorithms for statistics II
4	Jan 27, 29, 31	EM algorithm and GMM
5	Feb 3, 5, 7	(midterm 1) Hidden Markov model (HMM)
6	Feb 10, 12, 14	LDA/QDA, SVM, logistic regression
7	Feb 17, 19, 21	Linear models and splines
8	Feb 24, 26, 28	Model selection and cross-validation
9	March 2, 4, 6	Low-rank models, PCA, and recommender systems
10	March 9, 11, 13	(midterm 2) Bootstrap
	March 15-21	Spring break
11	March 23, 25, 27	Random forest
12	March 30, Apr 1, 3	Monte Carlo methods
13	April 6, 8, 10	Markov chain Monte Carlo
14	April 13, 15, 17	Project presentation (1-2 lectures)
	April 20	Final overview
	April 24	Final Exam

Tentative homework schedule:

- Homework 1 due Jan 17
- Homework 2 due Jan 31
- Homework 3 due Feb 21
- Homework 4 due March 6
- Homework 5 due March 27
- Homework 6 due April 10