Stats 202: Data Mining and Analysis

Fall 2019

Slides	Lab	Topic	Chapters	Date
Lecture 1 (lec1.pdf)		Class logistics, HW 0		Mon 9/23
Lecture 2 (lec2-cond.pdf)	Lab 2 (lab2.Rmd)	Supervised and unsupervised learning	2	Wed 9/25
Lecture 3 (lec3-cond.pdf)		Classification, Principal components analysis	10.1,10.2,10.4	Fri 9/27
Lecture 4 (lec4-cond.pdf)		PCA, Clustering	10.3,10.5	Mon 9/30
Lecture 5 (lec5-cond.pdf)		Linear regression	3.1-3.2	Wed 10/02
Lecture 6 (lec6-cond.pdf)	Lab 6 (lab6.Rmd)	Linear regression	3.3	Fri 10/04
Lecture 7 (lec7-cond.pdf)		Linear regression	3.5	Mon 10/07
Lecture 8 (lec8-cond.pdf)	Lab 8 (lab8.Rmd)	Linear regression, Classification: logistic regression	4.1-4.3	Wed 10/09
Lecture 9 (lec9-cond.pdf)		Classification: LDA, QDA	4.4-4.5	Fri 10/11
Lecture 10 (lec10-cond.pdf)		Classification examples	4.6	Mon 10/14
Lecture 11 (lec11-cond.pdf)	Lab 11 (lab11)	Cross validation	5.1, ESL 7.10 (https://web.stanford.edu/~hastie/ElemStatLearn/)	Wed 10/16
Lecture 12 (lec12-cond.pdf)	Lab 12 (lab12.Rmd)	The Bootstrap	5.2	Fri 10/18
Lecture 13 (lec13-cond.pdf)	Lab 13 (lab13.Rmd)	Model selection	6.1, 6.2.1	Mon 10/21

Slides	Lab	Topic	Chapters	Date
Lecture 14 (lec14-cond.pdf)	Lab 14 (lab14.Rmd)	Model selection and regularization	6.2	Wed 10/23
Lecture 15 (lec15-cond.pdf)		Dimensionality reduction	6.3, 6.4	Mon 10/28
Lecture 16 (lec16-cond.pdf)		High-dimensional and non-linear regression, splines	6.4, 7.1-7.4	Wed 10/30
Lecture 17 (lec17-cond.pdf)	Lab 17 (lab17.Rmd)	Smoothing splines, GAMS, Local regression	7.5-7.7	Fri 11/01
Lecture 18 (lec18-cond.pdf)	Lab 18 (lab18.Rmd)	GAMs, Document analysis	7.7	Mon 11/04
Lecture 19 (lec19-cond.pdf)	Lab 19 (lab19.Rmd)	Decision trees	8.1	Wed 11/06
Lecture 20 (lec20-cond.pdf)	Lab 20 (lab20.Rmd)	Classification trees, Bagging, Random forests	8.1, 8.2	Fri 11/08
Lecture 21 (lec21-cond.pdf)		Boosting, Support vector classifiers	9.1, 9.2	Mon 11/11
Lecture 22 (lec22-cond.pdf)		Support vector machines	9.3, 9.4	Wed 11/13
Lecture 23 (lec23-cond.pdf)		Support vector machines	9	Fri 11/15
Lecture 24 (lec24-cond.pdf)		Non-linear dimensionality reduction	ESL 14.5.4, 14.8-9	Mon 11/18
Lecture 25 (lec25-cond.pdf)	Lab 25 (lab25.html)	Missing data	ESL 9.6	Wed 11/20
Lecture 26 (lab25.html)		Lab 25	ESL 9.6	Fri 11/22
Lecture 27 (lec27-cond.pdf)		Relational data		Mon 12/2
Lecture 28 (lec28-cond.pdf)		Review		Wed 12/4