Data Science SF-11

2014-2015

Course outline

Lecture	Date	Day	Topic	HW	Project
1	Nov 19	W	Introduction to data science		
2	Nov 24	M	Exploratory data analysis		
3	Dec 1	M	Introduction to machine learning	1	
4	Dec 3	W	Linear regression and regularization		
5	Dec 8	M	Model selection and evaluation	2	
6	Dec 10	W	Classification: kNN, decision trees		
7	Dec 15	M	Classification: SVM	3	
8	Dec 17	W	Ensemble methods: random forest		Title
9	Jan 5	M	Intro to probability: naïve Bayes and logistic regression	4	
10	Jan 7	W	Feature engineering and selection		Summary
11	Jan 12	M	Clustering: k-means, hierarchical clustering	5	
12	Jan 14	W	Dimensionality reduction: PCA and SVD		
13	Jan 21	W	Text mining and information retrieval		Proposal
14	Jan 26	M	Network analysis	6	
15	Jan 28	W	Recommender systems		
16	Feb 2	M	Relational databases, SQL	7	
17	Feb 4	W	Big data storage and retrieval: noSQL, GraphDB		
18	Feb 9	M	Big data distributed computing: map-reduce, spark rdd	8	
19	Feb 11	W	Advanced: neural networks and deep learning		
20	Feb 18	W	Guest lecture		
21	Feb 23	M	Final projects presentations		Presentation
22	Feb 25	W	Final projects presentations		Presentation