

2018

Week 25

171-194

GSE471

STATISTICAL METHODS IN AI

Wednesday

4.8.2020

JUNE

20

9 TAUGHT BY

10 • prof. jawahar CV

COURSE TOPICS

- 12 • introduction, feature representation
- 1 • nearest neighbour classification
- 2 • random variables, probability densities, multivariate densities
- 3 • bayesian decision theory
- 4 • naive bayes classifier
- 5 • maximum likelihood estimation (MLE)
- 6 • linear discriminant functions
- 7 • perceptron learning
- minimum squared error procedures
- logistic regression

JUL	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S							
2018	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	*	*	*	*

JULY

AUGUST

JUNE

21

Thursday

- neural networks, backpropagation, training methods
- principal component analysis and eigen faces.
- linear discriminant analysis and fisher faces.
- max-margin classification (SVM), SVM variants, Kernelization.
- data clustering, K means (EM) and variants, hierarchical clustering.
- decision trees
- graphical models, bayesian belief networks
- combining classifiers, boosting.

TEXT BOOKS

1. pattern classification ; duda.
2. machine learning - a probabilistic perspective ; murphy.
3. neural networks - a comprehensive foundation ; haykin.