

STATISTICAL LEARNING METHODS

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This course will focus on machine learning methods and Bayesian statistics approach. It will cover the following topics: KNN, linear regression, linear models for classification (logistic regression and SVM), Bayes classifier and naive Bayes classifier, kernelized SVM, neural networks, MCMC inference, PCA, clustering (K-means, hierarchical, DBSCAN) and EM algorithm. It will thus cover the main chapters of Murphy's book Machine Learning: a probabilistic approach. Several applications will be realized in R or Python.