CS182 考试范围

Bayesian Decision Theory:

Bayes' Decision Rule, Discriminant Functions

Parameter Estimation:

Maximum Likelihood Estimation, Bayesian Estimation, Paramatric Classification, Model Selection

Linear Discriminant Function:

Paramatric Classification Revisited

Multilayer Perceptrons:

Multilayer Perceptrons

SVM:

Hard-Margin SVM, Soft-Margin SVM, Kernel Extension

Dimensionality Reduction:

PCA, LDA

Clustering and Mixture Models:

k-Means Clustering Algorithm, EM algorithm, Use of Clustering

Nonparametric Methods:

Nonparametric Density Estimation, Nonparametric Classification

Deep Learning Models:

CNN, RNN

Ensemble Learning

Voting, Boosting

Model Assessment Selection

Cross-Validation, Interval Estimation, Performance Evaluation