

- (1) Nonparametric methods for regression and classification
 - (a) Smoothers and kernels
 - (i) linear smoothers
 - (ii) splines
 - (iii) support vector machines
 - (b) Trees
- (2) Neural networks
 - (a) K -class logistic regression
 - (b) Architecture (width, depth, units, layers, activations, neural analogy)
 - (c) Computational graphs, Tensorflow
 - (d) Differentiation in computational graphs, backpropagation
 - (e) Gradient descent
 - (f) Regularization
 - (g) Convolutional neural networks
 - (h) Recurrent neural networks