**Logistic Regression. Theory**

1. Destignation

- prediction

 - target

 - features

 - weights

 - prediction

2. Probability conversion

 - dot product of the vector of weights and the vector of features of the j-th object.

 - probability space conversion

 - probability that yi is positive

- probability that yi is negative

2. Likelihood function

 - **likelihood function** - **Log-Reg cost function**

3. Gradient of LogLoss

 - sigmoid function

- cost function

-loss function

 - derivation of loss function

4. Gradient descent

 - gradient descent





