Generalization: performance on test data

L2: Basic Inequalities

1. Markov’s inequality

2. Chebychev’s inequality

3. Ex

Find elementary function f,g s.t

4. Chernoff Inequality

Moment generating function:

Then Which one is better? (Not exercise)

5. Concentration Inequality

P(

Central limit theorem (CLT)

6. Entropy, Relative entropy (kullback-ltibler Divergence)

6. Chernoff Bound

1)

Additive Chernoff bound:

(ex)

7. Hoeffding’s Inequality