Optimization Theory and Algorithm

October 7, 2021

Homework 4

Lecturer: Xiangyu Chang Scribe: Xiangyu Chang

Edited by: Xiangyu Chang

HW 1 Look at readme file. Solving LASSO problem by

- (1) Proximal Gradient Descent.
- (2) BCD.
- (3) ADMM.

HW 2 Read Textbook Page 470. And using data set CINA to implement

- (1) SGD for Logistic Regression with fixed learning rate.
- (2) SGD for Logistic Regression with decreasing learning rate.
- (2) SVRG for Logistic Regression.

References