



Deep Learning Lab 3

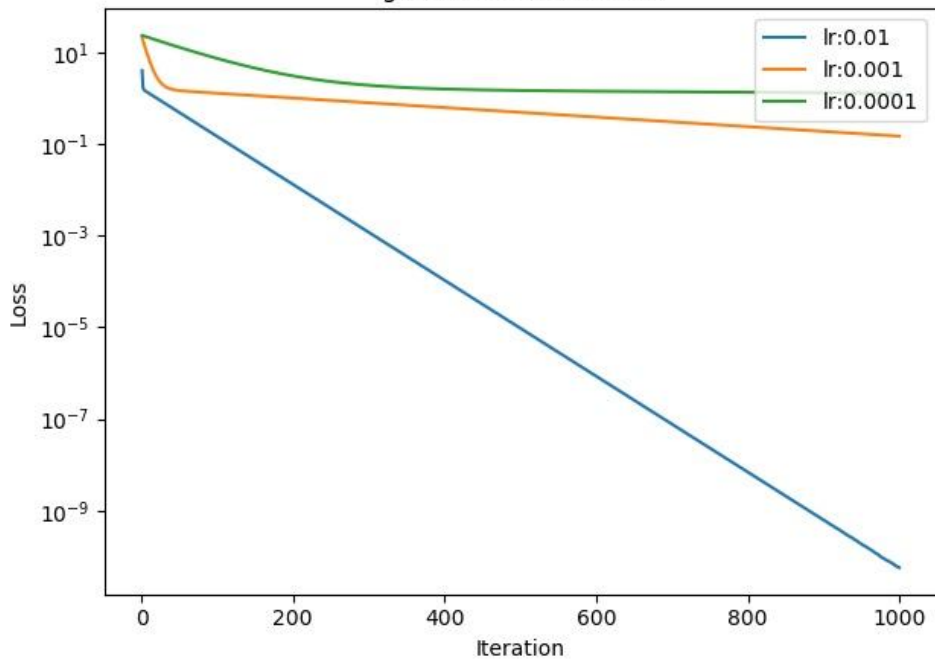
Xiao Fei

UPC - 2022-2023

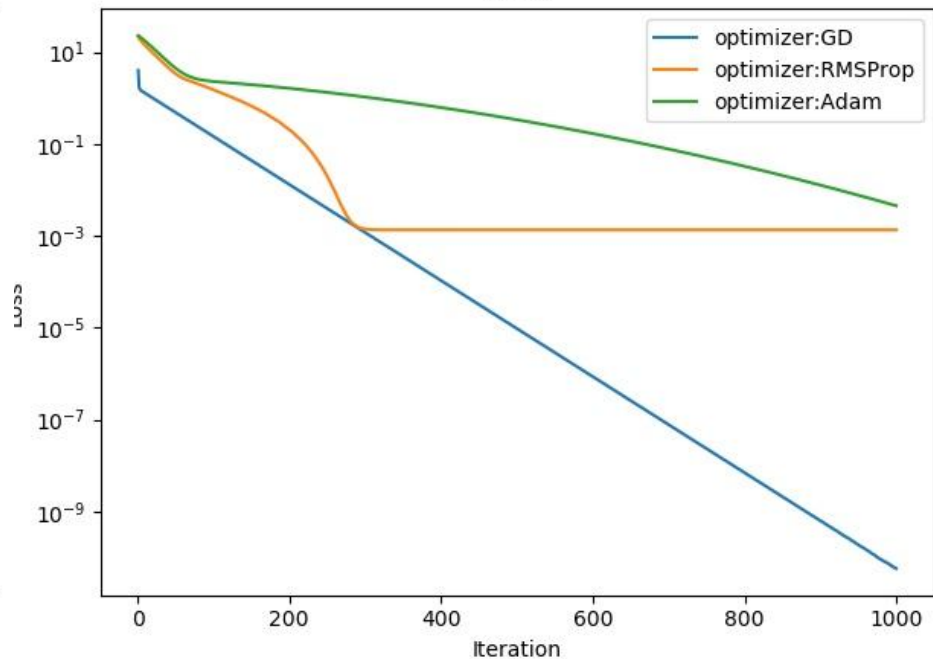
Code: [Github](#)

Exercise 1

gradient descent Loss



Loss

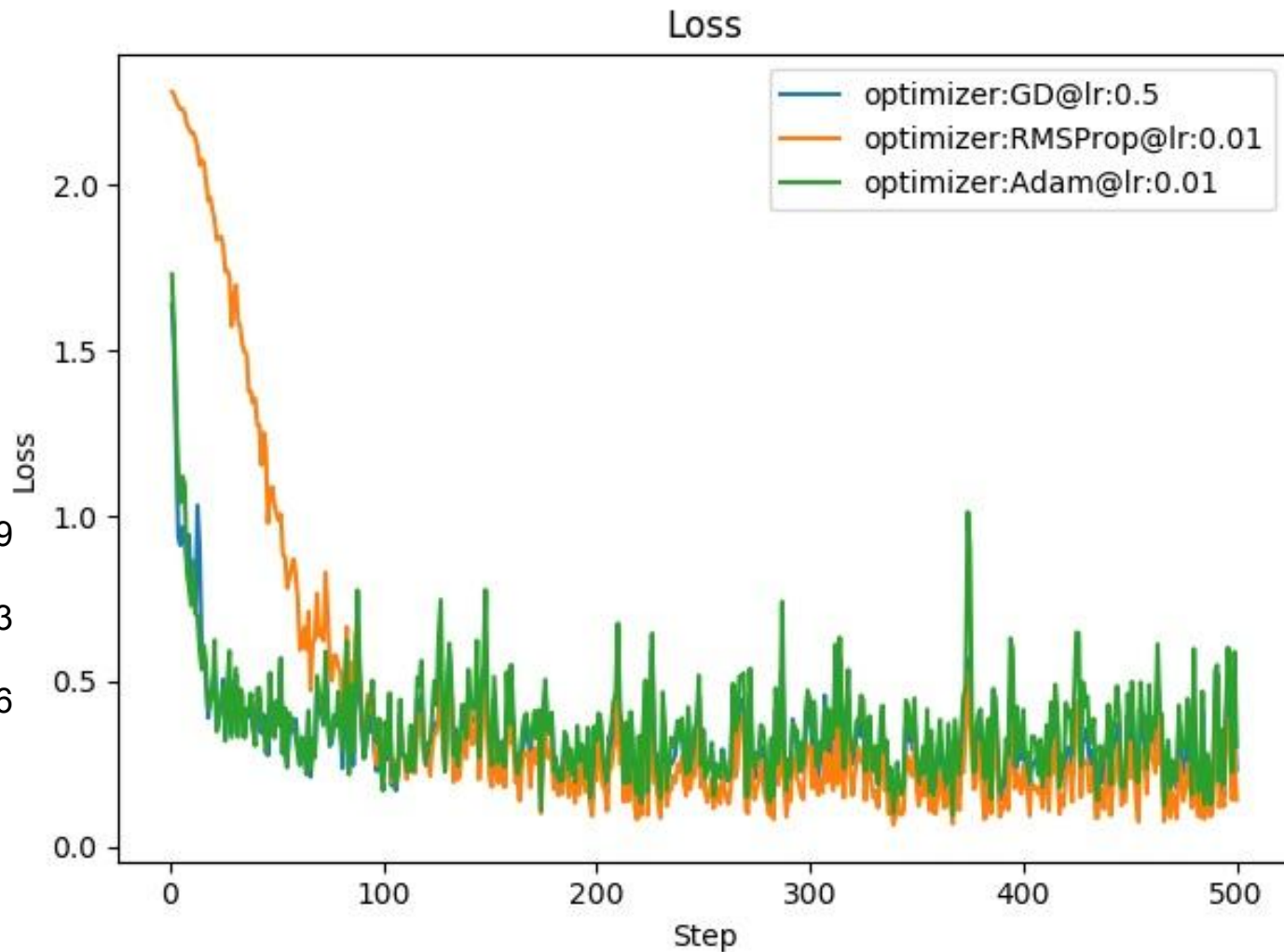


Exercise 2

GD test loss: 0.9079

RMSProp test loss: 0.9123

Adam test loss: 0.9166





Exercise 3

Batch Size = 1; Test Loss = 0.984; Training Time = 100.658s

Batch Size = 2; Test Loss = 0.979; Training Time = 53.580s

Batch Size = 5; Test Loss = 0.978; Training Time = 21.343s

Batch Size = 10; Test Loss = 0.976; Training Time = 11.430s

Batch Size = 50; Test Loss = 0.963; Training Time = 3.571s

Batch Size = 100; Test Loss = 0.955; Training Time = 2.794s

Batch Size = 500; Test Loss = 0.915; Training Time = 2.018s