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devtools::load_all("~/sgdnet/mini-batch/PR/opt/currentdev/sgdnet")

## Loading sgdnet

## Warning: package 'testthat' was built under R version 3.5.2

load("/Users/qinchenglun/Desktop/ijcnn1_full.rda")

library(lattice)
library(latticeExtra)

## Loading required package: RColorBrewer

lattice.options(default.theme = list(fontsize = list(points = 4, text = 8)))

options(sgdnet.debug = TRUE)

x <- scale(ijcnn1$x)
y <- ijcnn1$y

set.seed(10)
batch_opt <- sgdnet(x, y, "binomial", standardize = FALSE,
                    alpha = 0, lambda = 0.1, batchsize = 100, thresh = 1e-4)

## [1] TRUE

saga      <- sgdnet(x, y, "binomial", standardize = FALSE,
                    alpha = 0, lambda = 0.1, batchsize = 1, thresh = 1e-4)

## [1] TRUE

batch_pass <- batch_opt$npasses
batch_loss <- attr(batch_opt, "diagnostics")$loss[[1]]

saga_pass  <- saga$npasses
saga_loss  <- attr(saga, "diagnostics")$loss[[1]]

data <- data.frame(
  method = c(rep("saga", saga_pass), rep("batch-opt", batch_pass)),
  loss = c(saga_loss, batch_loss),
  pass = c(1:saga_pass, 1:batch_pass)
)

xyplot(loss ~ pass, groups = method, data = data, type = "l", auto.key = TRUE)

```

