We observed that regularization almost always ended up giving us worse results so we did not use regularization for our final submissions.

Almost no preprocessing was performed on the data. The only thing we did was changing the classes to 1,-1 if they were 1,0 initially so that our loss functions would work properly.

We got our best results in competition 1 using perceptron loss with a batch size of 100 and in competition 2 using square hinge loss with a batch size of 500.

Compi1 logistic_loss Regularization = None C =1.0

Compi1 logistic_loss Regularization = L2 C =0.1

Compi1 logistic_loss Regularization = L2 C =1.0

Compi1 logistic_loss Regularization = L2 C =10.0

Compi1 logistic_loss Regularization = L2 C =100.0

Compi1 logistic_loss Regularization = L4 C =0.1

Compi1 logistic_loss Regularization = L4 C =1.0

Compi1 logistic_loss Regularization = L4 C =10.0

Compi1 logistic_loss Regularization = L4 C =100.0

Compi1 perceptron_loss Regularization = None C =1.0

Compi1 perceptron_loss Regularization = L2 C =0.1

Compi1 perceptron_loss Regularization = L2 C =1.0

Compi1 perceptron_loss Regularization = L2 C =10.0

Compi1 perceptron_loss Regularization = L2 C =100.0

Compi1 perceptron_loss Regularization = L4 C =0.1

Compi1 perceptron_loss Regularization = L4 C =1.0

Compi1 perceptron_loss Regularization = L4 C =10.0

Compi1 perceptron_loss Regularization = L4 C =100.0

Compi1 square_hinge_loss Regularization = None C =1.0

Compi1 square_hinge_loss Regularization = L2 C =0.1

Compi1 square_hinge_loss Regularization = L2 C =1.0

Compi1 square_hinge_loss Regularization = L2 C =10.0

Compi1 square_hinge_loss Regularization = L2 C =100.0

Compi1 square_hinge_loss Regularization = L4 C =0.1

Compi1 square_hinge_loss Regularization = L4 C =1.0

Compi1 square_hinge_loss Regularization = L4 C =10.0

Compi1 square_hinge_loss Regularization = L4 C =100.0

Compi2 logistic_loss Regularization = L4 C =1.0

Compi2 logistic_loss Regularization = L2 C =10.0

Compi2 logistic_loss Regularization = L4 C =100.0

Compi2 logistic_loss Regularization = L4 C =0.1

Compi2 logistic_loss Regularization = L4 C =1.0

Compi2 logistic_loss Regularization = L4 C =10.0

Compi2 logistic_loss Regularization = L4 C =100.0

Compi2 perceptron_loss Regularization = None C =1.0

Compi2 perceptron_loss Regularization = L2 C =0.1

Compi2 perceptron_loss Regularization = L2 C =1.0

Compi2 perceptron_loss Regularization = L2 C =10.0

Compi2 perceptron_loss Regularization = L2 C =100.0

Compi2 perceptron_loss Regularization = L4 C =0.1

Compi2 perceptron_loss Regularization = L4 C =1.0

Compi2 perceptron_loss Regularization = L4 C =10.0

Compi2 perceptron_loss Regularization = L4 C =100.0

Compi2 square_hinge_loss Regularization = None C =1.0

Compi2 square_hinge_loss Regularization = L2 C =0.1

Compi2 square_hinge_loss Regularization = L2 C =1.0

Compi2 square_hinge_loss Regularization = L2 C =10.0

Compi2 square_hinge_loss Regularization = L2 C =100.0

Compi2 square_hinge_loss Regularization = L4 C =0.1

Compi2 square_hinge_loss Regularization = L4 C =1.0

Compi2 square_hinge_loss Regularization = L4 C =10.0

Compi2 square_hinge_loss Regularization = L4 C =100.0