

Logistic Regression on time series

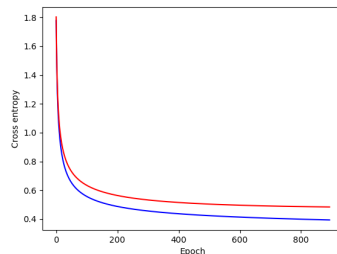
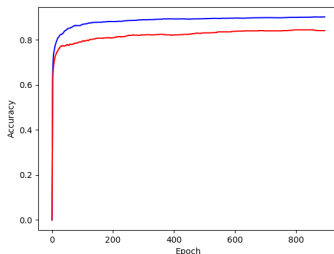
UWaveGestureLibraryAll

Bertrand Charpentier

KTH - Ensimag

bercha@kth.se

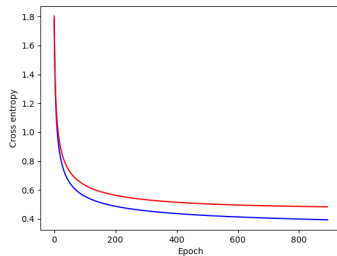
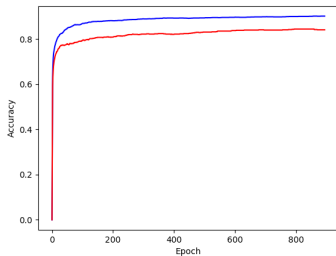
July 17, 2018



Logistic regression with early stopping

Parameters

- Regularization L2 norm
- Regularization factor= 0.001
- Stop after 200 epochs without improvements in accuracy



Logistic regression with early stopping

Results

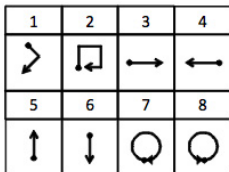


Figure 3: Gesture vocabulary adopted from [KKM+06]. The dot denotes the start and the arrow the end

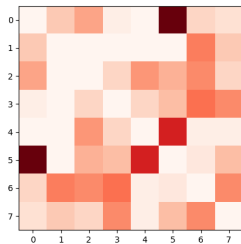


Figure: Logistic regression with early stopping - Original gestures (left) - Darkest squares on the confusion map (right) indicates gestures which are often confused

Results

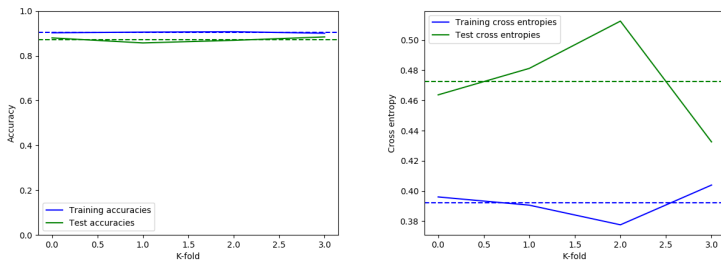


Figure: 4 folds cross validation on logistic regression with 1200 epochs and regularization factor = 0.001