LVC 2 - Glossary of Notations

W_i = Residual belonging to the i^{th} record

σ^2_i = Variance of W_i (the residual belonging to i^{th} record)

X_i = A vector for i^{th} record

θ = Approximated weight vector

θ^* = Actual weight vector

$\approx$ = Approximately equal to

X_t = Sample time series

Y_t = The forecasted t^{th} term

X_{i-1} = Time series with lag equal to 1

U_t = Error term in the forecasting model

X_{aug} = A set of possible vectors in X and its linear combination

θ^T = Transpose of the vector/matrix θ

$\phi(X)$ = A transformed version of the feature vector X

R^2 = R-squared, i.e., fraction of variation in target variable that has been explained by the features

α = Regularization hyperparameter

$|\theta|$ = Absolute value of θ

E = Expected value

E_i = Error for i^{th} fold in cross validation

P = Probability distribution

$g(x)$ = A function of the inputs i.e. x to estimate the weights θ

X_i = i^{th} vector from the input feature vectors

$\overline{X}^m_i$ = i^{th} random record of the m^{th} sample taken from the original data set

$\widehat{\Theta}^i$ = Actual value of the estimate $\widehat{\Theta}$ from the i^{th} sample in the bootstrap

$\widehat{\Theta}_{ave}$ = Average value of the estimate

$var(\widehat{\Theta})$ = Variance of the estimate in the bootstrapping

$se(\widehat{\Theta})$ = Standard error of the estimate