

Machine Learning 4. Cross-validation Po-Hsuan Huang

Competition1.

Gaussian Kernel linear regression method yields the best result.

Model (optimized after cross-validation)	Loglikelihood (nats/smample)	LL-LL.gauss
Histogram (60 bins)	-1,1491	0,1620
Single Gaussian	-1,3111	0,0000
Gaussian Mixture_ Expectation Maximization	-1,3100	0,0011
Gaussian Mixture_ find peaks	-1,3656	-0,0545
Gaussian Mixture_ find peaks_variation	-1,2737	0,0374
Gaussian Kernel_linear regression	-1,2197	0,0914

Competition2 (Only 2-fold validation is used.)

Covariance Model	Log-likelihood(nats/sample)	LL-LL.ML
C_ML	-104,8	0
C_superposition(lamda =0.6)	-86,39	18,41
C_rotation	-82,63	22,17