Overfitting?
Regularization
Neuron

\[ a_0 = 1 \]

\[ w_{0,j} \]

\[ a_j = g(in_j) \]

\[ a_i \]

\[ w_{i,j} \]

\[ \sum \]

\[ g \]

\[ a_j \]

Input Links

Input Function

Activation Function

Output

Output Links

Bias Weight
Neuron
Logistic Regression
Logistic Regression
Logistic Regression
Support Vector Machine (kernel)
Clustering
Nearest Neighbor for Regression

(a) 

(b) 

(c) 

(d)
PCA

raw images
PCA

compressed images: 638 out of 2304 dimensions