

REU Site Program in CVMA

Lab 7 – Exercises on Pattern Recognition

Type “doc svmtrain” in Matlab command line to read the example about how to use the SVM for the training and classification task.

Type “doc newff” in Matlab command line to read the example about how to use the Neural Network for the training and classification task.

Train a back propagation-based neural network to predict the weight of a rabbit as a function of its age. The data to use is shown in the following table. Age is given in days. Note that there is no single network that will give exact values. Try a couple of networks and see which works best that report its configuration, etc.

Age	Weight	Age	Weight	Age	Weight	Age	Weight
15	22	75	95	218	174	338	203
15	23	82	93	218	173	347	188
15	22	85	105	219	174	354	190
18	31	91	102	224	179	357	195
28	45	91	103	225	178	375	202
29	41	97	110	227	174	394	224
37	50	98	104	232	160	513	203
37	47	125	135	232	161	535	210
44	52	142	131	237	187	554	234
50	64	142	141	246	176	591	235
50	61	147	155	258	183	648	244
60	81	147	152	276	186	660	231
61	73	150	145	285	190	705	242
64	79	159	142	300	186	723	231
65	80	165	140	301	187	756	243
65	65	183	153	305	187	768	232
72	72	192	146	312	195	860	247
75	86	195	161	317	216		