```
>> Data = load('ExtraData.mat').Data;
Unrecognized field name "Data".

>> load('ExtraData.mat')
>> load('ExtraData.mat', 'gTruth')
>> load('Data2.mat')

Data =

  574×2 table

                                                imageFilename↙
Hand
↙
_____________________________________________________________________________________↙
___________    ____________________

    {'A:\High-level prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\p\2\img_9.↙
jpg'           }    {[  71 236 80 52]}
    {'A:\High-level prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\p\2\img_12.↙
jpg'           }    {2×4 double      }
    {'A:\High-level prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\p\2\img_15.↙
jpg'           }    {[33 234 247 167]}
    {'A:\High-level prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\p\2\img_28.↙
jpg'           }    {3×4 double      }
    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\p\2\img_169.jpg'         }↙
{5×4 double      }

                                                    :↙
:

    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\ImgsAllBack\img_1034.jpg'}↙
{2×4 double      }
    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\ImgsAllBack\img_1056.jpg'}↙
{2×4 double      }
    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\ImgsAllBack\img_1067.jpg'}↙
{[12 258 100 133]}
    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\ImgsAllBack\img_1070.jpg'}↙
{2×4 double      }
    {'A:\High-level↙
prommaing\Python\ADWM\Tracking\Detectros\DATASET_TRAIN\ImgsAllBack\img_1090.jpg'}↙
{[ 127 325 95 84]}

    Display all 574 rows.

>> Data(29,:) = [];
>> TrainWithCheck
**************************************************************************
Training an SSD Object Detector for the following object classes:
```

```
* Hand


Error using nnet.internal.cnn.util.GPUShouldBeUsed
GPU support for deep neural networks requires Parallel Computing Toolbox and a↙
supported GPU device.

Error in nnet.internal.cnn.assembler.setupExecutionEnvironment (line 29)
GPUShouldBeUsed = nnet.internal.cnn.util.GPUShouldBeUsed( ...

Error in trainSSDObjectDetector (line 261)
    executionSettings = nnet.internal.cnn.assembler.setupExecutionEnvironment(↙
options, ds, precision );

Error in TrainWithCheck (line 176)
[detector, info] = trainSSDObjectDetector(preprocessedTrainingData,detector,options);

Caused by:
    Error using parallel.gpu.GPUDevice.current
    Graphics driver is out of date. Download and install the latest graphics driver↙
for your GPU from NVIDIA.
    For more information on GPU support, see GPU Computing Requirements.

>> TrainWithCheck
*************************************************************************
Training an SSD Object Detector for the following object classes:

* Hand

Training on single CPU.
Initializing input data normalization.
|=========================================================================================↙
==================|
|  Epoch  |  Iteration  |  Time Elapsed  |  Mini-batch  |  Mini-batch  |  Mini-batch↙
|  Base Learning  |
|         |             |   (hh:mm:ss)   |     Loss     |   Accuracy   |     RMSE↙
|      Rate       |
|=========================================================================================↙
==================|
|       1 |           1 |       00:00:15 |      53.8665 |       49.34% |         2.14↙
|      1.0000e-04 |
|       1 |          50 |       00:04:56 |       7.3111 |       99.49% |         1.74↙
|      1.0000e-04 |
|       1 |         100 |       00:09:40 |       6.6749 |       99.70% |         1.53↙
|      1.0000e-04 |
|       2 |         150 |       00:14:35 |       5.0958 |       99.69% |         1.48↙
|      1.0000e-04 |
|       2 |         200 |       00:19:16 |       6.5365 |       99.68% |         1.38↙
|      1.0000e-04 |
|       3 |         250 |       00:24:01 |       4.9036 |       99.58% |         1.45↙
|      1.0000e-04 |
|       3 |         300 |       00:29:19 |       5.2736 |       99.68% |         1.44↙
|      1.0000e-04 |
|       4 |         350 |       00:34:38 |       5.2120 |       99.57% |         1.14↙
|      1.0000e-04 |
|       4 |         400 |       00:40:10 |       4.0802 |       99.77% |         1.26↙
```

	1.0000e-04					
	4	450	00:45:18	4.8199	99.66%	1.38↙
	1.0000e-04					
	5	500	00:51:36	4.7474	99.67%	1.43↙
	1.0000e-04					
	5	550	00:56:19	3.9186	99.57%	1.14↙
	1.0000e-04					
	6	600	01:00:59	4.2400	99.66%	1.35↙
	1.0000e-04					
	6	650	01:05:32	4.3483	99.69%	1.36↙
	1.0000e-04					
	7	700	01:10:19	4.0689	99.64%	1.11↙
	1.0000e-04					
	7	750	01:14:52	3.4586	99.82%	0.96↙
	1.0000e-04					
	8	800	01:19:25	4.4024	99.62%	1.34↙
	1.0000e-04					
	8	850	01:23:57	3.5227	99.48%	1.16↙
	1.0000e-04					
	8	900	01:28:35	3.8206	99.72%	1.26↙
	1.0000e-04					
	9	950	01:33:18	4.0619	99.75%	1.11↙
	1.0000e-04					
	9	1000	01:37:57	4.0302	99.62%	1.20↙
	1.0000e-04					
	10	1050	01:42:48	3.3963	99.67%	1.04↙
	1.0000e-04					
	10	1100	01:47:22	5.0920	99.85%	1.21↙
	1.0000e-04					
	11	1150	01:52:13	3.0674	99.55%	1.01↙
	1.0000e-04					
	11	1200	01:56:49	3.3031	99.75%	0.93↙
	1.0000e-04					
	11	1250	02:01:20	3.5546	99.53%	1.18↙
	1.0000e-04					
	12	1300	02:06:06	3.4351	99.56%	1.13↙
	1.0000e-04					
	12	1350	02:10:35	2.8467	99.57%	0.95↙
	1.0000e-04					
	13	1400	02:15:18	3.7416	99.85%	0.94↙
	1.0000e-04					
	13	1450	02:19:55	2.9738	99.80%	0.92↙
	1.0000e-04					
	14	1500	02:24:41	3.4946	99.62%	1.11↙
	1.0000e-04					
	14	1550	02:29:22	4.1527	99.76%	1.01↙
	1.0000e-04					
	15	1600	02:34:05	3.4025	99.87%	1.07↙
	1.0000e-04					
	15	1650	02:38:43	2.9633	99.85%	0.88↙
	1.0000e-04					
	15	1700	02:43:31	3.1100	99.64%	1.00↙
	1.0000e-04					
	16	1750	02:48:17	3.3570	99.72%	1.11↙
	1.0000e-04					

16	1800	02:53:01	3.3160	99.75%	1.09↙	1.0000e-04
17	1850	02:58:10	3.3628	99.48%	1.22↙	1.0000e-04
17	1900	03:02:56	2.9905	99.73%	0.90↙	1.0000e-04
18	1950	03:07:37	3.2309	99.73%	0.97↙	1.0000e-04
18	2000	03:12:13	2.8963	99.60%	0.96↙	1.0000e-04
18	2050	03:17:14	3.8431	99.84%	1.07↙	1.0000e-04
19	2100	03:22:14	3.2515	99.82%	0.96↙	1.0000e-04
19	2150	03:27:08	4.5166	99.80%	1.03↙	1.0000e-04
20	2200	03:31:48	3.7037	99.72%	1.08↙	1.0000e-04
20	2250	03:36:50	2.3987	99.73%	0.84↙	1.0000e-04
21	2300	03:41:44	3.3480	99.79%	1.10↙	1.0000e-04
21	2350	03:47:52	2.9239	99.76%	0.95↙	1.0000e-04
22	2400	03:53:50	2.7477	99.59%	0.89↙	1.0000e-04
22	2450	03:58:40	3.0928	99.50%	0.93↙	1.0000e-04
22	2500	04:03:32	2.4966	99.77%	0.88↙	1.0000e-04
23	2550	04:08:39	2.6755	99.86%	0.86↙	1.0000e-04
23	2600	04:13:10	2.9586	99.77%	0.99↙	1.0000e-04
24	2650	04:17:46	2.4690	99.88%	0.73↙	1.0000e-04
24	2700	04:22:28	2.5064	99.87%	0.84↙	1.0000e-04
25	2750	04:27:22	2.7721	99.79%	0.91↙	1.0000e-04
25	2800	04:32:15	3.2333	99.85%	0.99↙	1.0000e-04
25	2850	04:36:50	2.5951	99.66%	0.96↙	1.0000e-04
26	2900	04:41:42	2.9503	99.68%	1.02↙	1.0000e-04
26	2950	04:46:19	2.6751	99.77%	0.82↙	1.0000e-04
27	3000	04:50:52	2.4029	99.83%	0.78↙	1.0000e-04
27	3050	04:55:40	2.6742	99.81%	0.97↙	1.0000e-04
28	3100	05:00:28	2.2186	99.83%	0.73↙	1.0000e-04
28	3150	05:04:59	2.2017	99.67%	0.93↙	

1.0000e-04						
29	3200	05:09:43	2.2525	99.87%	0.60↙	
1.0000e-04						
29	3250	05:14:24	2.5388	99.76%	0.87↙	
1.0000e-04						
29	3300	05:19:05	3.6342	99.73%	1.02↙	
1.0000e-04						
30	3350	05:23:32	2.6008	99.90%	0.71↙	
1.0000e-04						
30	3400	05:28:15	1.9872	99.80%	0.75↙	
1.0000e-04						
31	3450	05:32:56	2.3063	99.73%	0.83↙	
8.0000e-05						
31	3500	05:37:25	2.2787	99.61%	0.89↙	
8.0000e-05						
32	3550	05:42:19	3.8025	99.89%	1.23↙	
8.0000e-05						
32	3600	05:47:46	2.4846	99.72%	0.74↙	
8.0000e-05						
33	3650	05:53:13	2.7477	99.84%	0.94↙	
8.0000e-05						
33	3700	05:58:00	1.9584	99.81%	0.66↙	
8.0000e-05						
33	3750	06:03:04	3.4191	99.54%	1.21↙	
8.0000e-05						
34	3800	06:08:03	2.1180	99.77%	0.86↙	
8.0000e-05						
34	3850	06:13:26	2.5894	99.70%	1.01↙	
8.0000e-05						
35	3900	06:18:10	2.3370	99.83%	0.88↙	
8.0000e-05						
35	3950	06:23:10	2.2789	99.82%	0.82↙	
8.0000e-05						
36	4000	06:28:06	1.8572	99.83%	0.75↙	
8.0000e-05						
36	4050	06:32:53	1.7543	99.93%	0.65↙	
8.0000e-05						
36	4100	06:38:09	2.1240	99.87%	0.76↙	
8.0000e-05						
37	4150	06:43:05	2.2674	99.89%	0.76↙	
8.0000e-05						
37	4200	06:47:58	2.3387	99.75%	0.75↙	
8.0000e-05						
38	4250	06:52:58	2.0683	99.86%	0.76↙	
8.0000e-05						
38	4300	06:57:30	2.6753	99.86%	0.71↙	
8.0000e-05						
39	4350	07:02:22	1.8856	99.81%	0.74↙	
8.0000e-05						
39	4400	07:07:20	2.3405	99.79%	0.79↙	
8.0000e-05						
40	4450	07:12:23	1.6024	99.85%	0.59↙	
8.0000e-05						
40	4500	07:18:24	2.4241	99.81%	0.70↙	
8.0000e-05						

```
|      40 |        4550 |       07:23:38 |       2.2730 |       99.92% |          0.61↙
|      8.0000e-05 |
|      40 |        4560 |       07:24:35 |       2.0026 |       99.87% |          0.71↙
|      8.0000e-05 |
|=========================================================================================↙
==================|
Training finished: Max epochs completed.
Detector training complete.
*********************************************************************

>>
```