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In [1]: # Titanic Survivor Prediction
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In [1]: #survived (0/1)
# pClass - 1=st,2=nd,3=rd
# name
# sex
# age
# sibsp (No of Siblings or Spouses aboard)
# parch (No of Parents/Children aboard)
#ticket (Number)
# fare (Passenger fare)
```

```
In [2]: import numpy as np
import tflearn
```

WARNING:tensorflow:From C:\Users\ankur\anaconda3\envs\tf_gpu\lib\site-packages\tensorflow\python\compat\v2_compat.py:107: disable_resource_variables (from tensorflow.python.ops.variable_scope) is deprecated and will be removed in a future version.

Instructions for updating:

non-resource variables are not supported in the long term

curses is not supported on this machine (please install/reinstall curses for an optimal experience)

```
In [3]: from tflearn.datasets import titanic
titanic.download_dataset('titanic_dataset.csv')

from tflearn.data_utils import load_csv
data, labels = load_csv('titanic_dataset.csv',target_column=0,categorical_labels
```

```
In [4]: data[1:5]
```

```

Out[4]: [['1',
          'Allison, Master. Hudson Trevor',
          'male',
          '0.9167',
          '1',
          '2',
          '113781',
          '151.5500'],
         ['1',
          'Allison, Miss. Helen Loraine',
          'female',
          '2',
          '1',
          '2',
          '113781',
          '151.5500'],
         ['1',
          'Allison, Mr. Hudson Joshua Creighton',
          'male',
          '30',
          '1',
          '2',
          '113781',
          '151.5500'],
         ['1',
          'Allison, Mrs. Hudson J C (Bessie Waldo Daniels)',
          'female',
          '25',
          '1',
          '2',
          '113781',
          '151.5500']]

```

```

In [5]: #preprocessing func
def preprocess(passengers,columns_to_delete):
    #sort by descending id and delete cols
    for columns_to_delete in sorted(columns_to_delete,reverse=True):
        [passenger.pop(columns_to_delete) for passenger in passengers]
    for i in range(len(passengers)):
        #converting sex to float
        passengers[i][1] = 1. if passengers[i][1] == 'female' else 0.
    return np.array(passengers,dtype=np.float32)

#Ignore 1 and 6 cols (name and ticket num)
to_ignore=[1,6]

#process data
data=preprocess(data,to_ignore)

```

```

In [6]: #Our model
net=tflearn.input_data(shape=[None,6])
net=tflearn.fully_connected(net,32)
net=tflearn.fully_connected(net,32)
net=tflearn.fully_connected(net,2,activation='softmax')
net=tflearn.regression(net)

```

WARNING:tensorflow:From C:\Users\ankur\anaconda3\envs\tf_gpu\lib\site-packages\tflearn\initializations.py:164: calling TruncatedNormal.__init__ (from tensorflow.python.ops.init_ops) with dtype is deprecated and will be removed in a future version.

Instructions for updating:

Call initializer instance with the dtype argument instead of passing it to the constructor

```
In [7]: model = tflearn.DNN(net)
        #start training (Apply gradient descent algo)
        model.fit(data, labels, n_epoch=10, batch_size=16, show_metric=True)
```

```
Training Step: 819 | total loss: 0.44813 | time: 0.846s
| Adam | epoch: 010 | loss: 0.44813 - acc: 0.8065 -- iter: 1296/1309
Training Step: 820 | total loss: 0.44145 | time: 0.857s
| Adam | epoch: 010 | loss: 0.44145 - acc: 0.8134 -- iter: 1309/1309
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```

```
In [10]: #Data for Raj and Khushi
        raj=[3, 'Jack Dawson', 'male', 19, 0, 0, 'N/A', 5.0000]
        Khushi=[1, 'Rose Dewitt Bukater', 'female', 17, 1, 2, 'N/A', 100.0000]
        #preprocess
        raj, khushi = preprocess([raj, Khushi], to_ignore)
        #predict
        pred = model.predict([raj, Khushi])
        print("Raj Surviving Rate:", pred[0][1])
        print("Khushi Surviving Rate:", pred[1][1])
```

```
Raj Surviving Rate: 0.13955392
Khushi Surviving Rate: 0.9823371
```

```
In [ ]:
```