Example (InceptionV3)

In [1]:
```
from keras.applications.inception_v3 import InceptionV3
from keras.preprocessing import image
from keras.applications.inception_v3 import preprocess_input, decode_predictions
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
%matplotlib inline
```

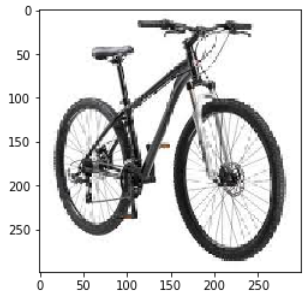
```
Using TensorFlow backend.
```

In [2]:
```
model = InceptionV3(weights='imagenet')
```

In [3]:
```
img = image.load_img('./E_InceptionV3_images/bicycle.jpg',target_size=(299,299))
```

In [4]:
```
plt.imshow(img)
```

Out[4]:
```
<matplotlib.image.AxesImage at 0x7f62e0192780>
```



In [5]:
```
x = image.img_to_array(img)
```

In [6]:
```
x = np.expand_dims(x,axis=0)
```

In [7]:
```
x.shape
```

Out[7]:
```
(1, 299, 299, 3)
```

In [8]:
```
x.max()
```

Out[8]:
```
255.0
```

In [9]:
```
x = preprocess_input(x)
```

In [10]:
```
x.max()
```

Out[10]:
```
1.0
```

In [11]:
```
y = model.predict(x)
```

In [12]:
```
df = pd.DataFrame(decode_predictions(y,top=5)[0])
df = df.drop(0,axis=1).round(2)
df
```

Out[12]:

	1	2
0	mountain_bike	0.90
1	disk_brake	0.03
2	bicycle-built-for-two	0.01
3	tricycle	0.00
4	lawn_mower	0.00

In [13]:
```
#model.summary()
```