In [1]:

```
import cv2
from matplotlib import pyplot as plt
```

In [2]:

```
#1
src = cv2.imread('./data/people_test.png')
hog = cv2.HOGDescriptor()
hog.setSVMDetector(cv2.HOGDescriptor_getDefaultPeopleDetector())
```

In [3]:

```
#2
loc1, weights1 = hog.detect(src)
print('len(loc1)=',len(loc1))
dst1 = src.copy()
w, h = hog.winSize
for pt in loc1:
    x, y = pt
    cv2.rectangle(dst1, (x, y), (x+w, y+h), (255,0,0),2)

dst1_rgb = cv2.cvtColor(dst1, cv2.COLOR_BGR2RGB)
plt.figure(figsize=(15,30))
plt.imshow(dst1_rgb)
plt.show()
```

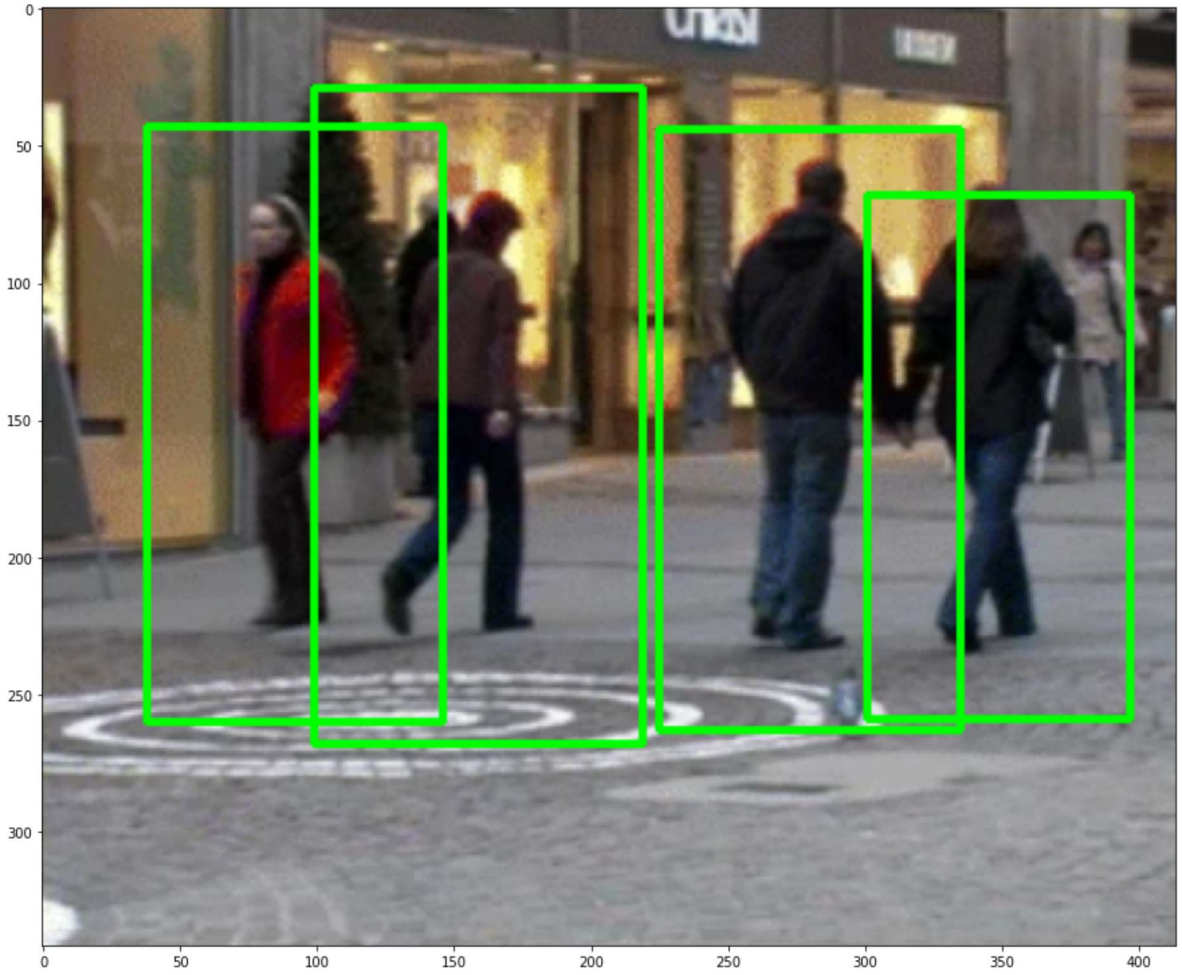
```
len(loc1)= 2
```

In [4]:

```
#3
dst2 = src.copy()
loc2, weights2 = hog.detectMultiScale(src)
print('len(loc2)=',len(loc2))
for rect in loc2:
    x, y, w, h = rect
    cv2.rectangle(dst2, (x, y), (x+w, y+h), (0,255,0),2)

dst2_rgb = cv2.cvtColor(dst2, cv2.COLOR_BGR2RGB)
plt.figure(figsize=(15,30))
plt.imshow(dst2_rgb)
plt.show()
```

```
len(loc2)= 4
```

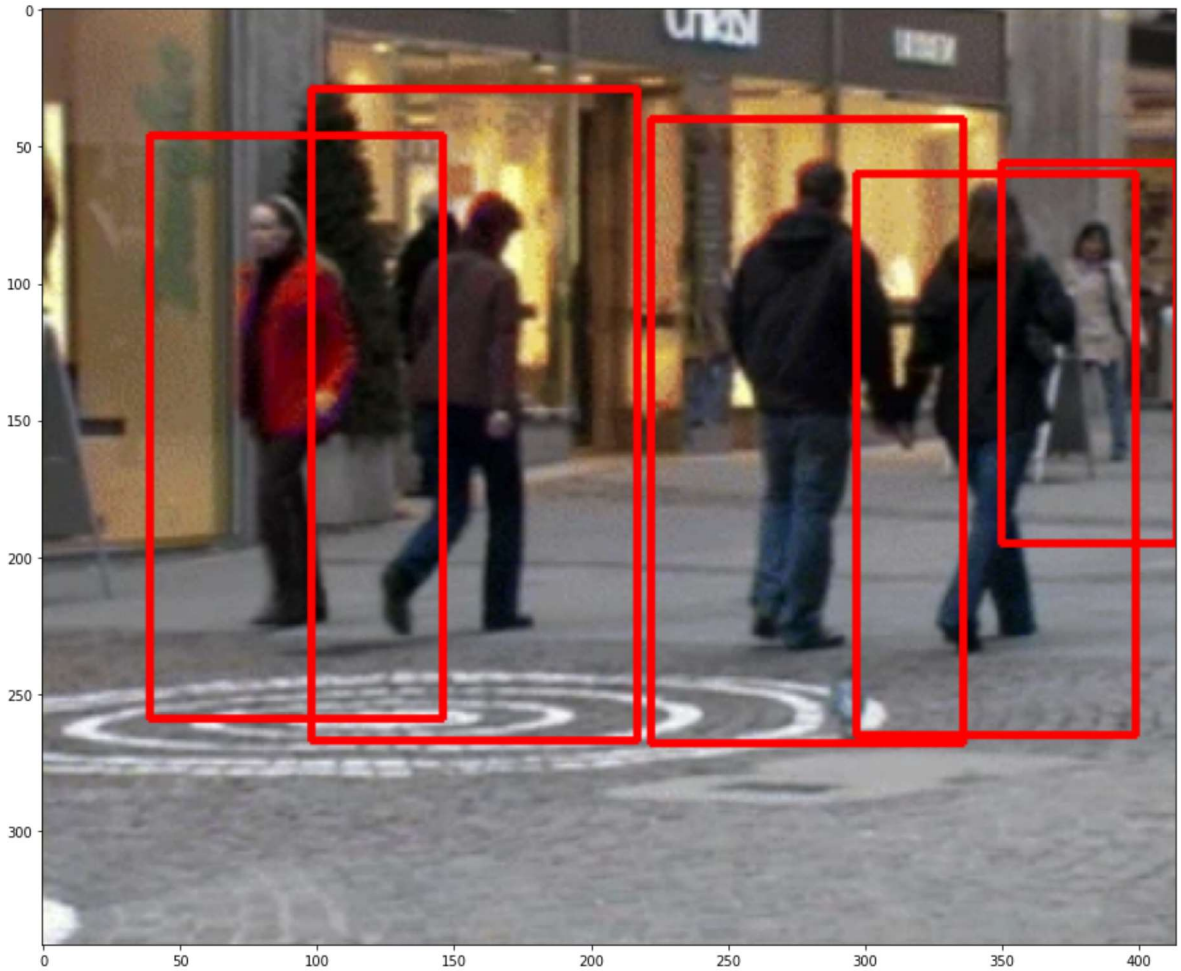


In [5]:

```
#4
dst3 = src.copy()
loc3, weights3 = hog.detectMultiScale(src, winStride=(1,1), padding=(8,8))
print('len(loc3)=',len(loc3))
print('weights3=', weights3)
for i, rect in enumerate(loc3):
    x, y, w, h = rect
    if weights3[i]>0.5:
        cv2.rectangle(dst3, (x, y), (x+w, y+h), (0,0,255),2)
    else:
        cv2.rectangle(dst3, (x, y), (x+w, y+h), (255,0,0),2)

dst3_rgb = cv2.cvtColor(dst3, cv2.COLOR_BGR2RGB)
plt.figure(figsize=(15,30))
plt.imshow(dst3_rgb)
plt.show()
```

```
len(loc3)= 5
weights3= [[3.88430388]
 [2.45950832]
 [3.77631884]
 [1.56293279]
 [1.73125672]]
```



In [ ]: