

5G智能物联网

引体向上测试案例

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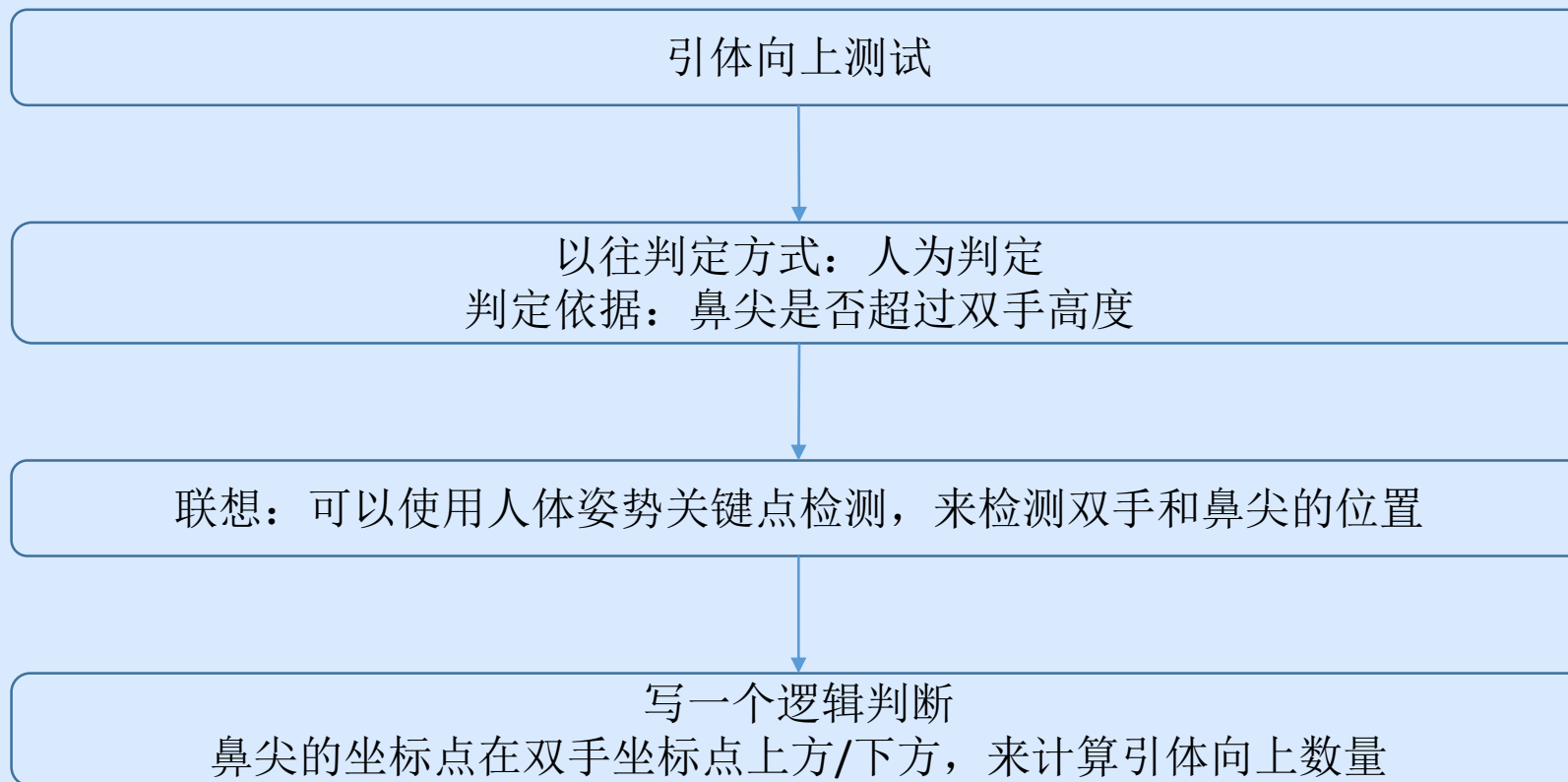
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1

引体向上测试案例的构建流程

引体向上测试案例的构建流程



2

Aidlux人体姿势关键点检测
代码解读

Aidlux人体姿势关键点检测代码解读



Human Pose Detection and Tracking

高保真人体姿势跟踪，可从RGB视频帧中推断出至少25个3D身体姿态关键点

```
Lahaina for_arm64 11:42
from cv2 import *
import math
import numpy as np
from scipy.special import expit
import time
import aidlite_gpu

aidlite = aidlite_gpu.aidlite(1)

def resize_pad(img):
    """ resize and pad images to be input to
    The face and palm detector networks take
    as input. As such the input image is padded
    size while maintaining the aspect ratio.
    Returns:
        img1: 256x256
        img2: 128x128
        scale: scale factor between original
        pad: pixels of padding in the original
    """
    size0 = img.shape
    if size0[0] >= size0[1]:
        h1 = 256
        w1 = 256 * size0[1] // size0[0]
        padh = 0
        padw = 256 - w1
        scale = size0[1] / w1
```

output:

3

逻辑判断引体向上测试个数

逻辑判断引体向上测试个数

The image shows a web browser window displaying a VS Code editor interface. The browser's address bar shows the URL `10.10.101.47:8000`. The VS Code editor has two tabs open: `main.py` and `testpose.py`. The `testpose.py` file is active, showing the following Python code:

```
6
7 #app = Flask(__name__, static_url_path='', static_folder='.')
8 doing=False
9 count=-1
10 def detect(landmarks):
11     global doing,count
12     head_point=landmarks[0]
13     print(head_point)
14     lhand_point=landmarks[15]
15     rhand_point=landmarks[16]
16     avg_line=(lhand_point[1]+rhand_point[1])/2
17
18     if doing:
19         if head_point[1]>avg_line:
20             doing=False
21             count+=1
22     else:
23         if head_point[1]<avg_line:
24             doing=True
25     ...
26 @app.route('/')
```

The code implements a logic for counting pull-ups based on the vertical position of the head point relative to an average line. The `doing` variable indicates whether a pull-up is currently being performed. The `count` variable tracks the number of pull-ups. The `detect` function takes a list of landmarks and updates the state based on the head point's position.

The terminal at the bottom of the editor shows the command `/bin/python3 /home/examples/pose_fibocom/testpose.py` and the output `[1]+ Stopped(SIGTSTP) sh-5.0#`, indicating that the program was interrupted.

4

效果展示

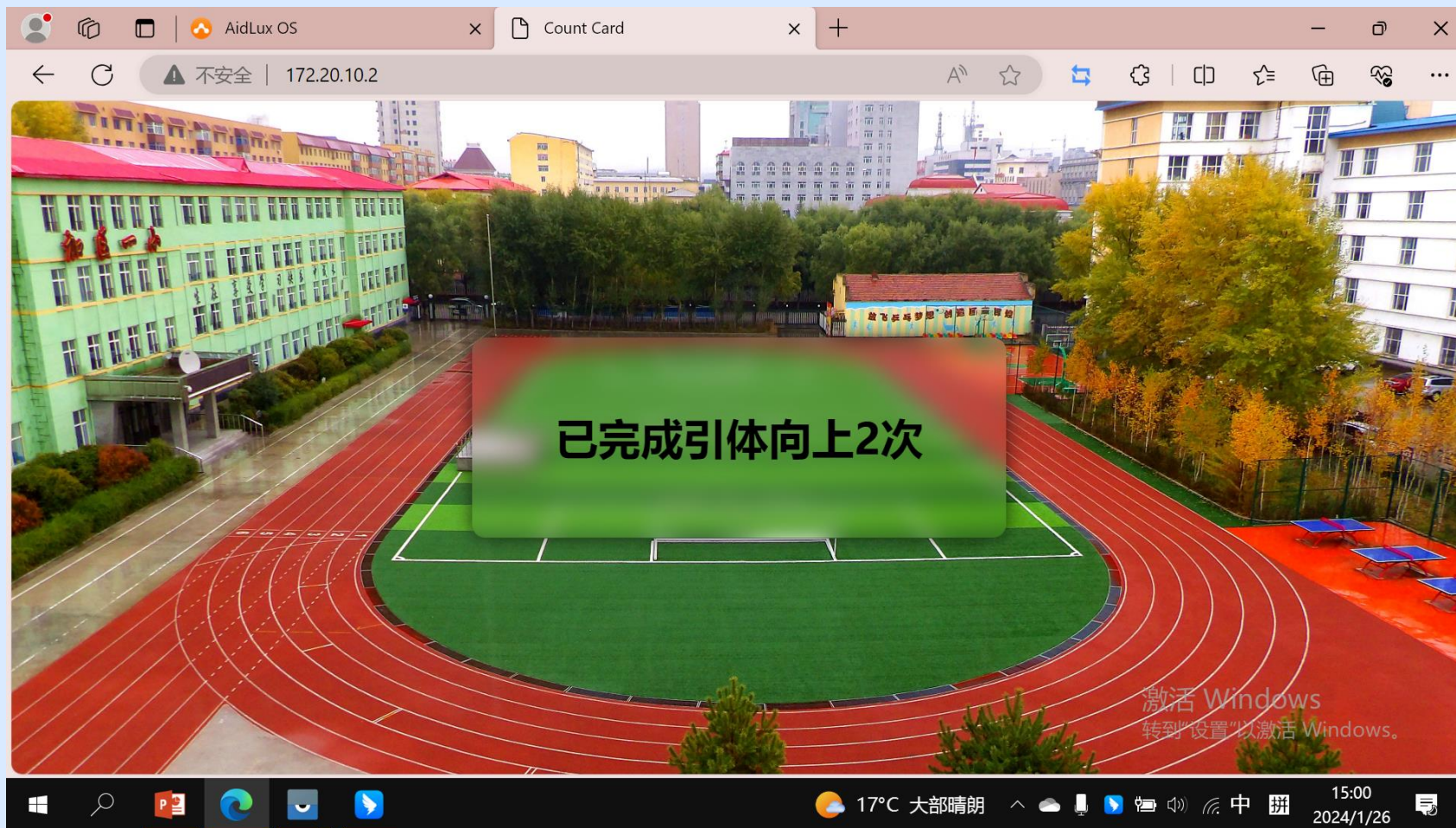
效果展示

SC171开发套件屏幕效果展示



效果展示

网页显示效果展示



5

引体向上测试案例代码

引体向上测试案例代码

工程链接: <https://pan.baidu.com/s/1jEyDZyDpcUPRPttp3-R5Cw?pwd=vs1y>

完美无线体验

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