

기본형 : {"input":[1,0,0,1,0],"output":[1,0,0,0,0]}

data.json에 넣을것들

```
for i in range(0, 4000):
    json = '{"input":[' + str(dflist[i]).strip('[]') + '0' + ',' + str(dflist2[i]).strip('[]') + '0' + ',' +
    + str(ip_dst1[i][0]).strip('[]') + '0' + ',' + str(ip_dst2[i][0]).strip('[]') + '0' + ',' +
    + str(ip_dst3[i][0]).strip('[]') + '0' + ',' + str(ip_dst4[i][0]).strip('[]') + '0' + '], "output" :[' +
    + output[i] + '],}'
    print(json)"""
```

dflist : port.src 0~1의 수로 정규화

dflist2 : Size 0~1의 수로 정규화

IPv4 ex) 172.30.1.36

ip_dst : 패킷 별로 172 의 자리에 있는 수를 0~1의 수로 정규화

ip_dst2 : 패킷 별로 30 의 자리에 있는 수를 0~1의 수로 정규화

ip_dst3 : 패킷 별로 1 의 자리에 있는 수를 0~1의 수로 정규화

ip_dst4 : 패킷 별로 36 의 자리에 있는 수를 0~1의 수로 정규화

output을 판단하는 기준 : 어떤 IoT기기를 사용하는지에 따라 판단 -> MAC주소를 보고 알 수있음

송신하는 MAC주소에 해당하는 IoT기기를 최우선, 송신하는 MAC주소가 게이트웨이일시 수신하는 MAC주소에 해당하는 IoT기기로 판별함.

output별 보내는 방법

[1,0,0] : Direct

[0,1,0] : VPN

[0,0,1] : Tor Browser

```
'18:b7:9e:02:20:44': # Invoxia Triby Speaker
    output.append('[1,0,0]')

'd0:52:a8:00:67:5e' : # Samsung Smart Things
    output.append('[0,1,0]')

'70:ee:50:18:34:43': # Netatmo Welcome Camera
    output.append('[0,0,1]')

'30:8c:fb:2f:e4:b2': # Nest Dropcam
    output.append('[0,1,0]')

'00:24:e4:11:18:a8': # Withings Smart Baby Monitor
    output.append('[0,0,1]')

'f4:f2:6d:93:51:f1': # Tplink Day Night Cloud NC220 camera
    output.append('[0,0,1]')

'44:65:0d:56:cc:d3': # Amazon Alexa Echo
    output.append('[1,0,0]')

'00:16:6c:ab:6b:88': # Samsung SmartCam
    output.append('[0,1,0]')

'ec:1a:59:83:28:11': # Belkin wemo motion sensor
    output.append('[1,0,0]')

'ec:1a:59:79:f4:89': # Belkin Wemo switch
    output.append('[1,0,0]')

'08:21:ef:3b:fc:e3': # Samsung Galaxt Tab
    output.append('[1,0,0]')

'70:5a:0f:e4:9b:c0': # HP Printer
    output.append('[0,1,0]')

'e0:76:d0:33:bb:85': # PIX-STAR Photo-frame
    output.append('[1,0,0]')

'50:c7:bf:00:56:39': # TPLink Smart Plug HS105
    output.append('[1,0,0]')
```

'70:ee:50:03:b8:ac': # Netamo Smart Weather Station
output.append('[1,0,0]')

'00:24:e4:1b:6f:96' : # Withings Body
output.append('[0,0,1]')

'18:b4:30:25:be:e4': # NEST Protect Smoke Alarm
output.append('[1,0,0]')

'b4:ce:f6:a7:a3:c2': # Android Phone
output.append('[0,1,0]')

'74:2f:68:81:69:42': # Laptop
output.append('[0,1,0]')

'd0:a6:37:df:a1:e1': # iPhone
output.append('[0,1,0]')

'74:6a:89:00:2e:25': # Blipcare Blood Pressure meter
output.append('[0,0,1]')

송신 mac주소가 게이트 웨이 일시 :

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```

'01:00:5e:7f:ff:fa': # internet Multicast mac address
output.append('[1,0,0]')

'ff:ff:ff:ff:ff:ff': # 연결장치없음
output.append('[1,0,0]')

'01:00:5e:02:00:fc': # internet multicast mac address
output.append('[0,1,0]')

'01:00:5e:00:00:fb': # internet multicast mac address
output.append('[0,1,0]')

'01:00:5e:00:00:fc': # internet multicast mac address
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