

# 获取 ip

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python 获取ip get\_ip\_address



If Python is a must, you can check this article: <http://code.activestate.com/recipes/439094-get-the-ip-address-associated-with-a-network-inter/>

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They rightly point out that a computer has as many IP addresses as network interfaces.



Here is their code to get the IP address of a network adapter, I've tested the code and it works:



```
import socket
import fcntl
import struct

def get_ip_address(ifname):
    s = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
    return socket.inet_ntoa(fcntl.ioctl(
        s.fileno(),
        0x8915, # SIOCGIFADDR
        struct.pack('256s', ifname[:15])
    )[20:24])

print get_ip_address('lo')
print get_ip_address('eth0')
```

If your RPi is connected via WiFi the adapter name should be `wlan0`

Otherwise you can get it with the `ip` command:

```
ip addr show eth0 | grep inet
```

You should get something like:

```
inet 192.168.0.140/24 brd ....
```

That's your IP address.

Of course none of this will work if you just boot up your RPi and could not connect to it because you don't know the IP address! If that's the case your DHCP server will surely be able to tell you which IP address he just gave to the RPi (or you just try them all :))

That said, you might benefit of referencing you RPi by name and, since you're using a Mac, probably the best solution would be to install avahi-daemon:

```
sudo apt-get install avahi-daemon
```

which implements the Apple Zeroconf specification (like Bonjour). You can then ssh to your RPi by name:

```
ssh pi@raspberry.local
```

I used a different approach for my two Raspberrys (named *ygdasil* and *dvalinn*): I've opted for a fixed IP (192.168.0.140 and 192.168.0.142) so I can also use etc/hosts file on some of my other machines.

I could have set up an internal DNS or rely on Wins, but current solution works for me.

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edited Mar 31 '13 at 21:16

answered Mar 31 '13 at 18:35



Remo.D

491 ● 5 ● 10

Awesome answer - thank you so much! – [xxmbabanexx](#) Mar 31 '13 at 23:31

Hi Remo, Thank for explaining this in detail. I tried you code on python 3.5 running on rasp pi 3. It doesn't work and result in a runtime error. "struct.error: argument for 's' must be a bytes object" – [Amit Rai Sharma](#) Dec 8 '16 at 12:45

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以上代码在 python2 中运行OK，但是 python3 会报错，报：

struct.error: argument for 's' must be a bytes object

reference:

<https://stackoverflow.com/questions/27391167/struct-error-argument-for-s-must-be-a-bytes-object-in-python-3-4>

```
----- code: -----  
  
import socket  
import fcntl  
import struct  
  
def get_ip_addr( ifname ):  
    skt = socket.socket( socket.AF_INET, socket.SOCK_DGRAM )  
    return socket.inet_ntoa( fcntl.ioctl(skt.fileno(), 0x8915, struct.pack('256s', bytes(ifname[:15], 'utf-8')))[20:24] )  
  
print ( get_ip_addr('lo') )  
  
#print ( get_ip_addr('eth0') )  
-----
```