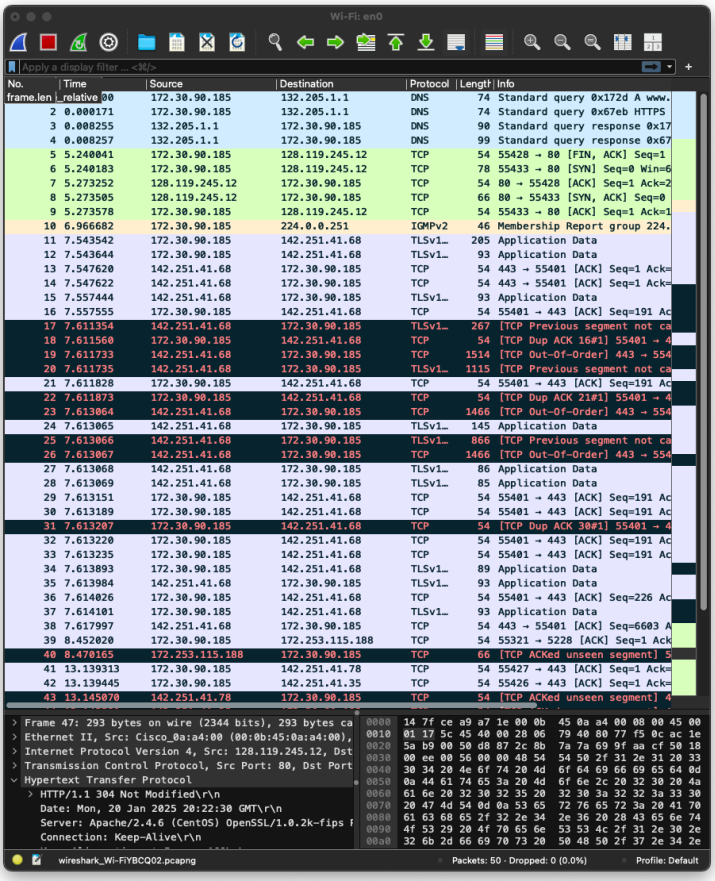
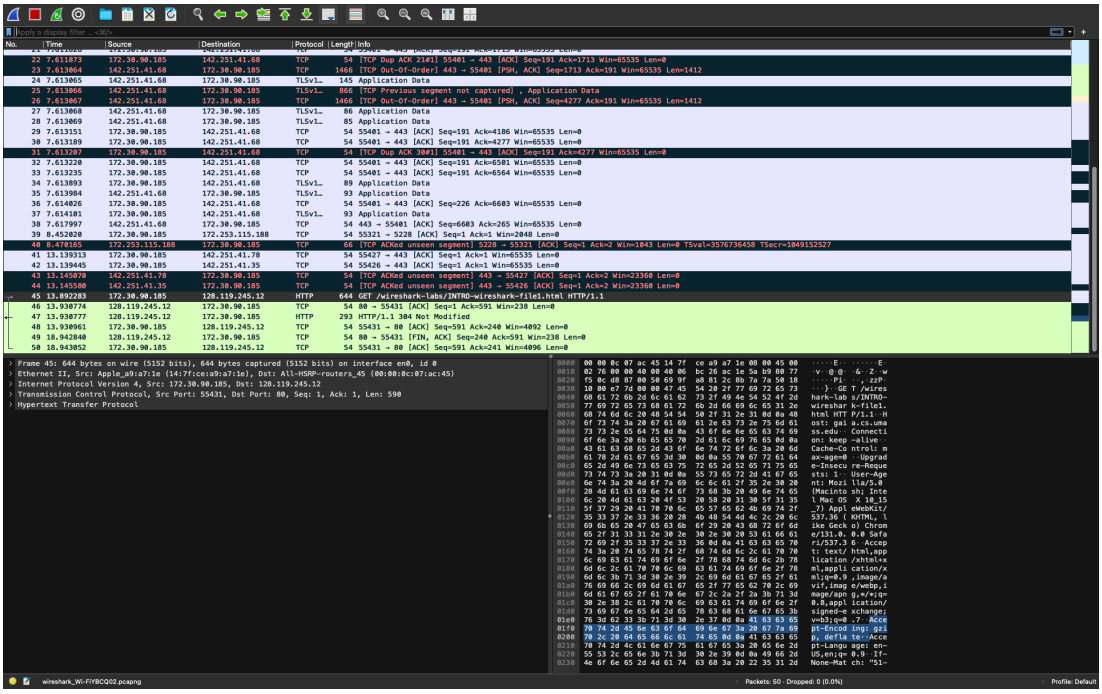
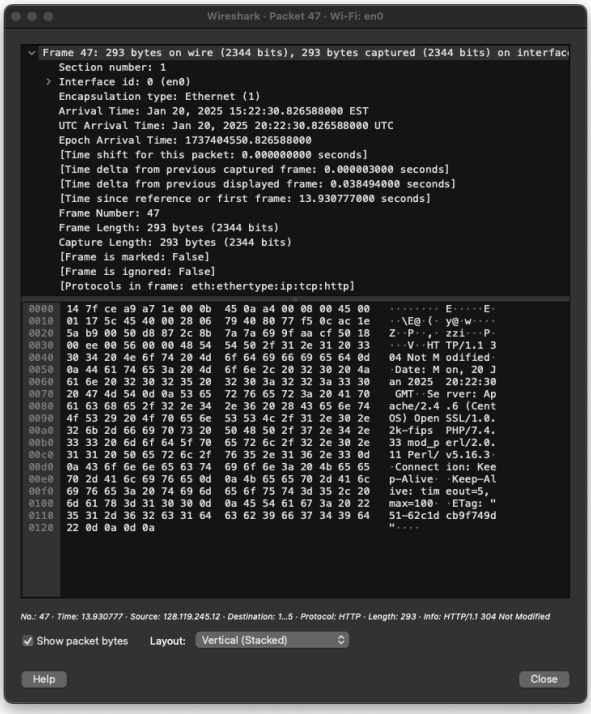
1. This is the screenshot of my protocols.

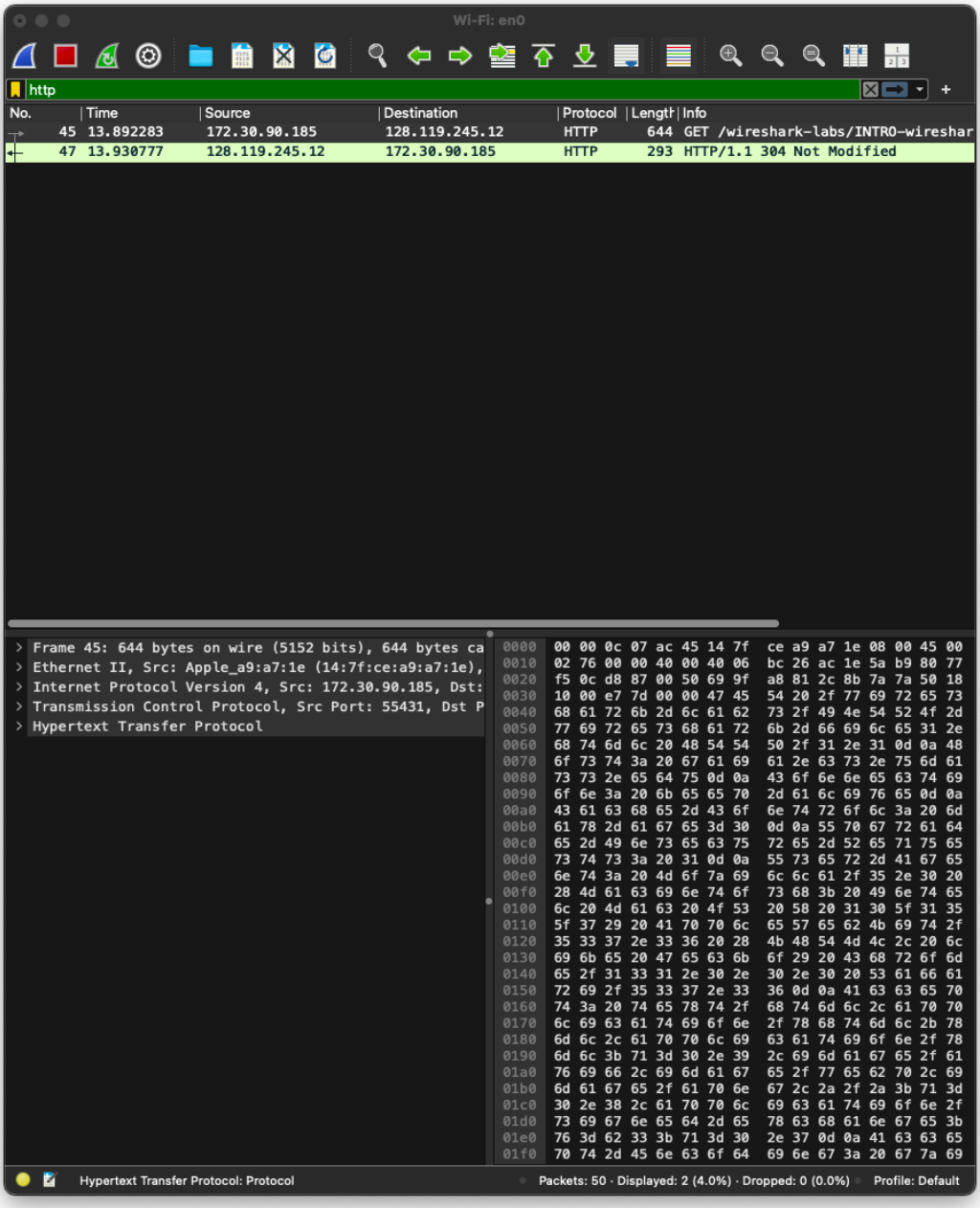




2. The GET was sent at 15:22:30.788094000 and the reply was received at 15:22:30.826588000 (time of day format). Delay = 0.038494 seconds (or 38.494 milliseconds).

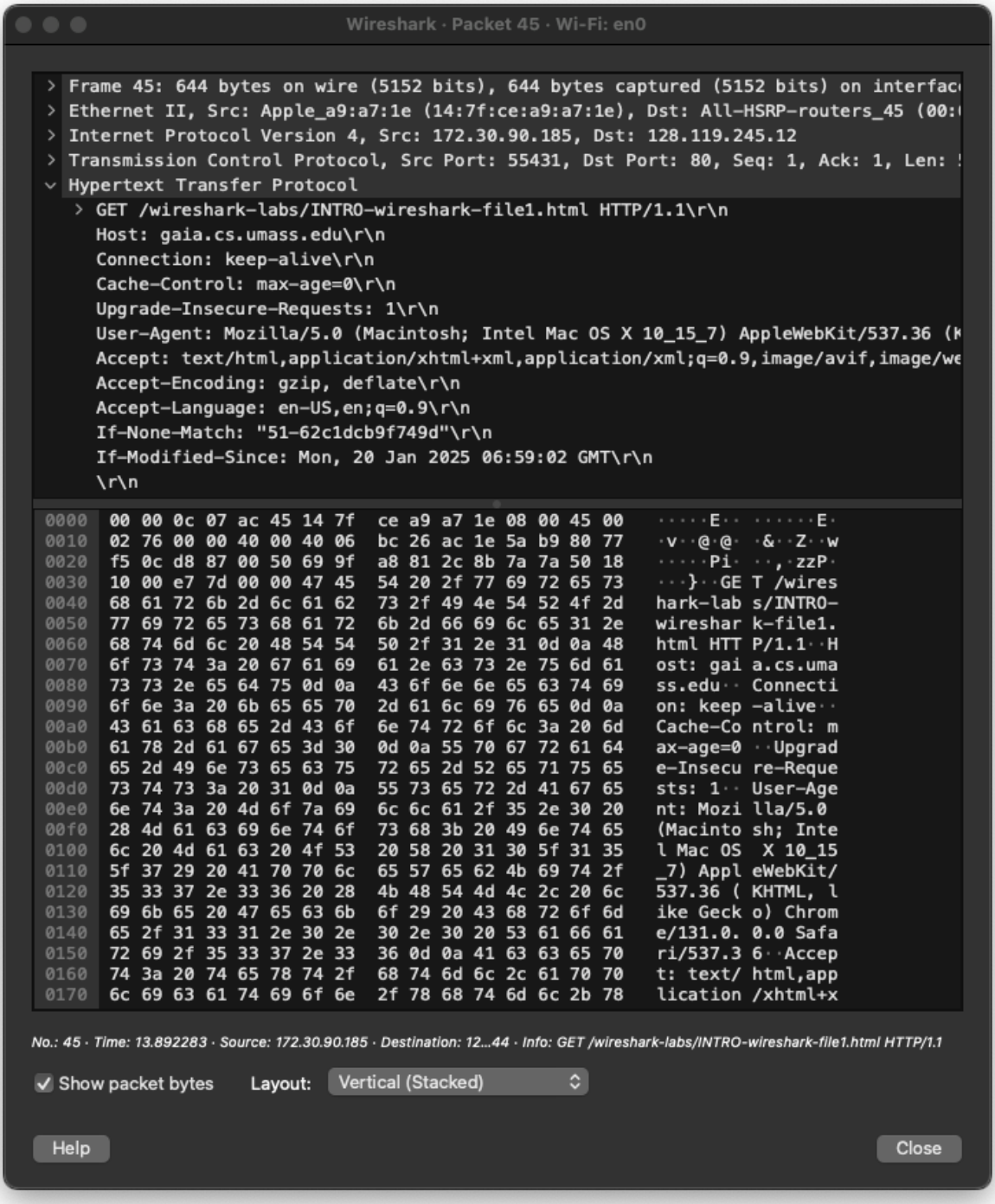


3. 172.30.90.185 is my internet address. 128.119.245.12 is the address of gaia.cs.umass.edu. I basically filtered to http, then I saw that the request was sent from my IP address and the destination was the website.

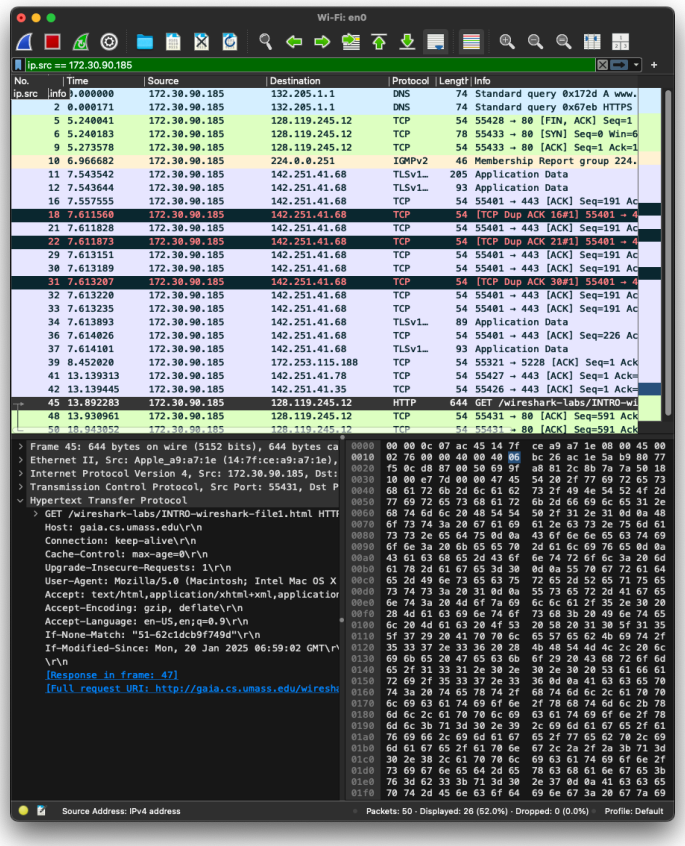


4.

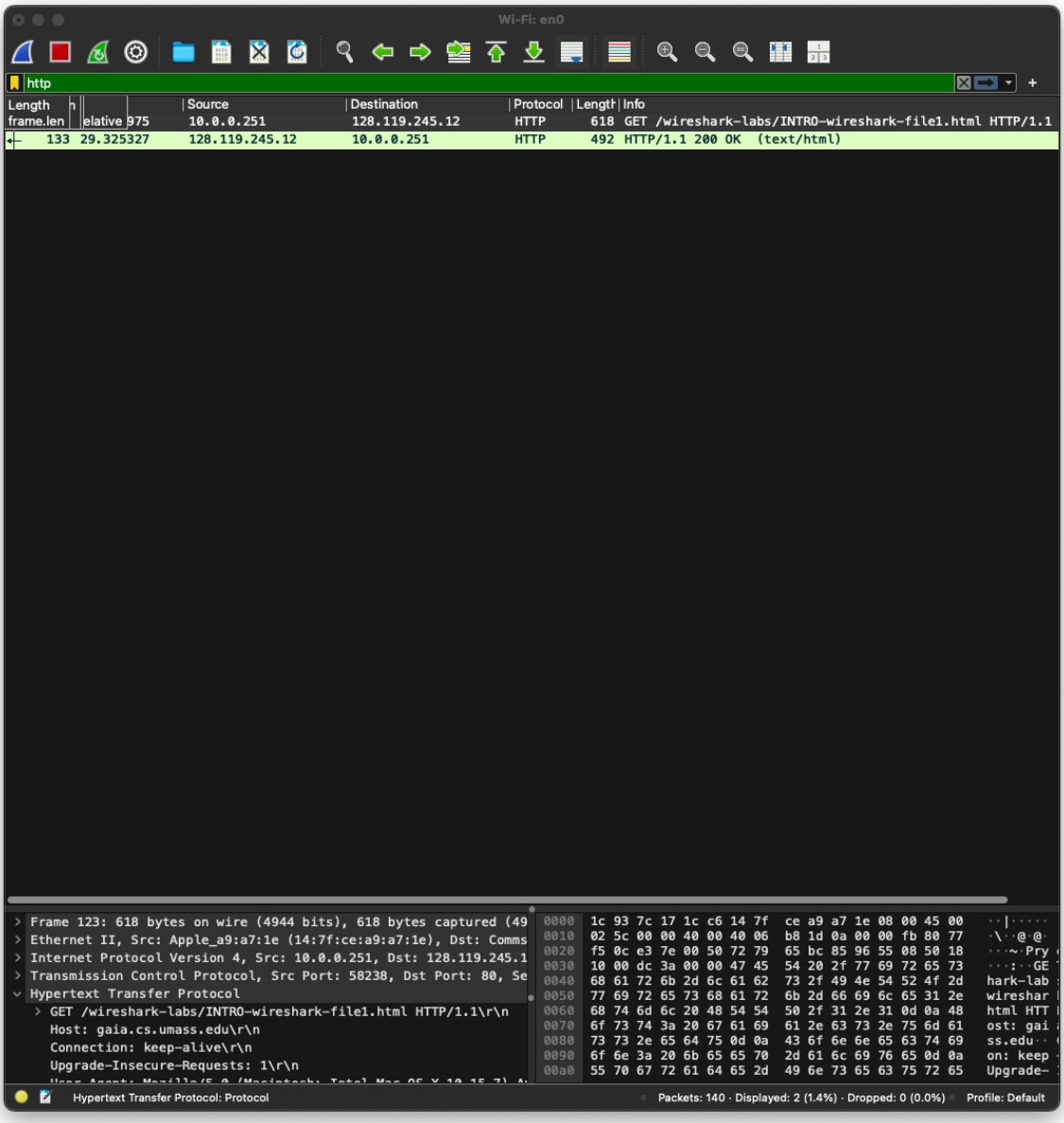
The destination port address is 80 as shown in the screenshot.



5. I captured 50 packets, with 27 involving my IP address and 23 not involving it. Initially, I used ip.dst and ip.addr, but they showed all packets involving my IP. I tried ip.src, which worked for filtering packets where my IP is the source. However, using ip.src alone doesn't account for packets where my IP is the destination. The main issue occurs when using a "not" condition like !(ip.addr == 172.30.90.185). This filter includes packets where my IP doesn’t appear anywhere, which can cause unexpected results, especially with loopback traffic or packets where my IP is both the source and destination. Wireshark doesn’t explicitly warn about this issue but highlights syntax errors if the filter is invalid. To fix this, instead of using ip.addr alone, I tried to strengthen the logic. For example, To exclude all packets involving my IP: !(ip.src == my_ip || ip.dst == my_ip).



6. I printed this from my home so my IP changed. Please see below printed.



/var/folders/8m/jlm4nx3j773f0cszt9w3t0t80000gn/T/wireshark_Wi-Fi1SFS02.pcapng 140 total packets, 1 shown

```
No.     Time           Source                Destination           Protocol Length Info
    123 29.100975      10.0.0.251            128.119.245.12        HTTP     618    GET /
wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
Frame 123: 618 bytes on wire (4944 bits), 618 bytes captured (4944 bits) on interface en0, id 0
Ethernet II, Src: Apple_a9:a7:1e (14:7f:ce:a9:a7:1e), Dst: Commscope_17:1c:c6 (1c:93:7c:
17:1c:c6)
Internet Protocol Version 4, Src: 10.0.0.251, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 58238, Dst Port: 80, Seq: 1, Ack: 1, Len: 564
Hypertext Transfer Protocol
    GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Host: gaia.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Upgrade-Insecure-Requests: 1\r\n
    User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/131.0.0.0 Safari/537.36\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/
apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7\r\n
    Accept-Encoding: gzip, deflate\r\n
    Accept-Language: en-US,en;q=0.9\r\n
    If-None-Match: "51-62c1dcb9f749d"\r\n
    If-Modified-Since: Mon, 20 Jan 2025 06:59:02 GMT\r\n
    \r\n
    [Response in frame: 133]
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
```

/var/folders/8m/jlm4nx3j773f0cszt9w3t0t80000gn/T/wireshark_Wi-Fi1SFS02.pcapng 140 total packets, 1 shown

```
No.     Time           Source                Destination           Protocol Length Info
    133 29.325327      128.119.245.12        10.0.0.251            HTTP     492    HTTP/1.1 200
OK  (text/html)
Frame 133: 492 bytes on wire (3936 bits), 492 bytes captured (3936 bits) on interface en0, id 0
Ethernet II, Src: Commscope_17:1c:c6 (1c:93:7c:17:1c:c6), Dst: Apple_a9:a7:1e
(14:7f:ce:a9:a7:1e)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.251
Transmission Control Protocol, Src Port: 80, Dst Port: 58238, Seq: 1, Ack: 565, Len: 438
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Mon, 27 Jan 2025 03:38:12 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/
v5.16.3\r\n
    Last-Modified: Sun, 26 Jan 2025 06:59:01 GMT\r\n
    ETag: "51-62c967e9f98c5"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 81\r\n
    Keep-Alive: timeout=5, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=UTF-8\r\n
    \r\n
    [Request in frame: 123]
    [Time since request: 0.224352000 seconds]
    [Request URI: /wireshark-labs/INTRO-wireshark-file1.html]
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    File Data: 81 bytes
Line-based text data: text/html (3 lines)
```