How you will match ICMP responses with the probes you are sending out?
In order to do this I added the following line to my code

if ip_dest_address == dest_addr and udp_dest_port == port and int(icmp_type == 3) and int(icmp_code == 3):

Basically the approach is to check the information in the ICMP, UDP and IP headers sent along with the ICMP packet. The ICMP packet should have type 3 (destination unreachable) and code 3 (Port Unreachable). We are expecting it to have this type and code because we are purposefully sending our packets to an unreachable source. We can examine the UDP header's destination port to make sure it is the same port we put on the header. Lastly we examine the destination address inside the IP header to make sure this is the address we set as well. If all these values match our expectations the possibility that this packet is not meant for us would be extremely minimal. Someone would have to be using the same port and sending to the same address. One other possible approach I was thinking was reversing the checksum in the header of the ICMP and checking to see if matches the payload we are attaching to packets.

List all possible reasons you can think of for not getting the answer when probing an arbitrary host.

One reason is that the servers may be configured with firewalls that drops packets being sent to unauthorized ports. Another possible reason is that some of these sites are actually not working well.

In my RTT vs. Hops graphs there isn't strong correlation between the two. This isn't what I expected to see. I expected that as hops increased so would RTT because every hop adds processing time. In fact one can surely assume that every hop does add some amount of RTT time. So then since there isnt a strong correlation this suggests that there is some other factor in RTT that is of much higher precedence. Possibly ISPs and/or routers being used. Or even the type of processing done by the routers.

In the distance vs hops graph we can see that the numbers of hops does tend to increase with distance, with the exemption of a strange outlier point at 16 hops. There doesn't seem to be a clear slope in increase though as distance increase and points with similar amount of hops can be at vastly different distances.

In the distance vs RTT graph there appears to be no relationship between the two. Most points fell close to each other at around 40 ms. This is perhaps the strangest of the graphs, its intuitive to think that as distance increase so will the traveling time, but not here. There are two points that are very strange outliers here perhaps these are just not good servers.