Screenshot:

Write up: throughout this lab, I learned a lot about how network protocols work in general, and how important a standardized operating flow is to computer networks. This lab also helped me understand how ip packets can send more complicated data. Now I can more easily picture how packets are created and deconstructed.

I completed this lab in C++, and i think that contributed a lot to understanding how data is bundled into these sorts of packets, because c++ is a lower level language than something like python. I've used some network protocols in previous internships, but I never understood what a protocol was on a base level, and why it's used.

Reading through the documentation of the NTP protocol, and putting a very simple version into practice gave me a much better understanding of what exactly a protocol is at a code level.

Overall, even though implementing this is C++ was a lot more complicated than using something like python, but I think it helped me gain a better understanding of both internet protocols and IP packets.