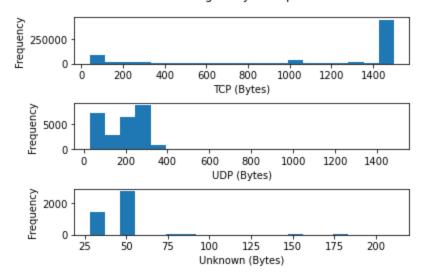IPV4 Packet Lengths by Transport Protocol

This figure above shows distributions for each protocol type of TCP, UDP and Unknown in relation to the total length of IPV4 Packets in Bytes (from the ip_len field). As seen from the histograms, none of the protocols follow a normal distribution of packet lengths as TCP is Left-Skewed with a mean of 1,152.49 bytes, UDP is right skewed with a mean of 197.3 bytes and Unknown is right skewed with mean of 48.37 bytes. These mean values make sense in context of packet length by transport protocol since TCP packets store much more information than UDP, and Unknown packets are missing lots of information making them the smallest average packets. These data were taken from the output of length mode (-l) in the **l.txt** file and the code for the analysis comes from the **analysis.py** file.