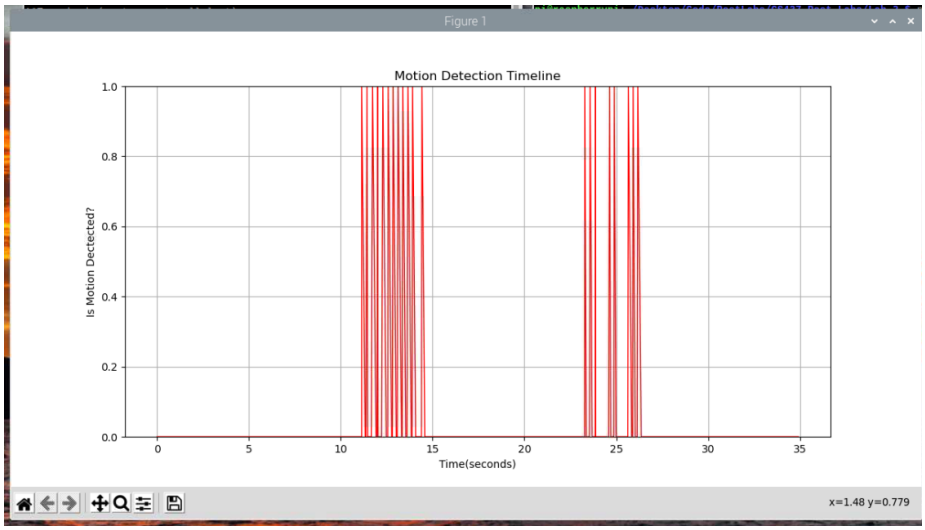
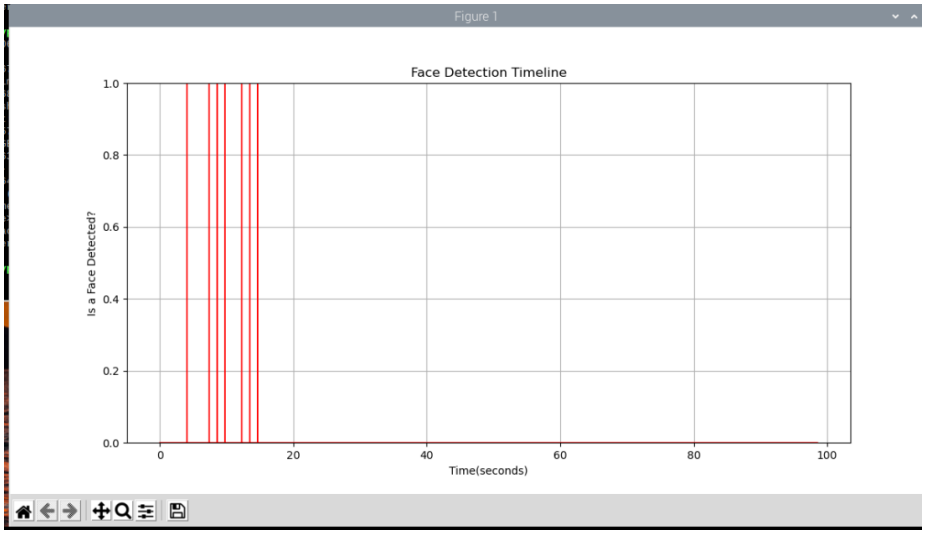
Videos for all Parts of Lab:https://drive.google.com/file/d/1cXAfA_Pai_kFctJrTuISZ1dk3yk_M78Q/view?usp=sharing

Lab 2 Post Lab 1 Image of Motion Detection Chart



We run the sniff into a pcap file and then search UPD packets on port 5000 in the pcap file to identify which packets were sent to our server by the camera.

Lab 2 Post Lab 2 Facial Detection charting



PS: The graph went to 100 seconds because we forgot to shut off the packet capture, so it keeps recording packets throughout the entire time, hence the extended time, with no detections

Compare the volume of traffic generated by this new script vs. the previous motion detector using the timeline graph from the previous assignment.

- As seen in the timelines, the motion detector sent more packets during the duration of motion detection compared to the volume of packets sent from the new face detection script.

How do you expect the face-only detection vs. motion-detection camera to perform in terms of false positive and false negative ratios?

- The ratio of false negatives for face-only detection would be higher because of the increased complexity of the model used for face recognition. However, there would be fewer false positives than motion detection because it does additional processing.

Which one do you expect to consume lower power? why?

- The motion detection would consume lower power because sending UDP packets is comparatively lower power than the complex processing needed for the Pi to apply a facial recognition model AND send UDP packets. However, if there is more frequent communication, then the motion detector will consume more power since it will be constantly sending packets.