

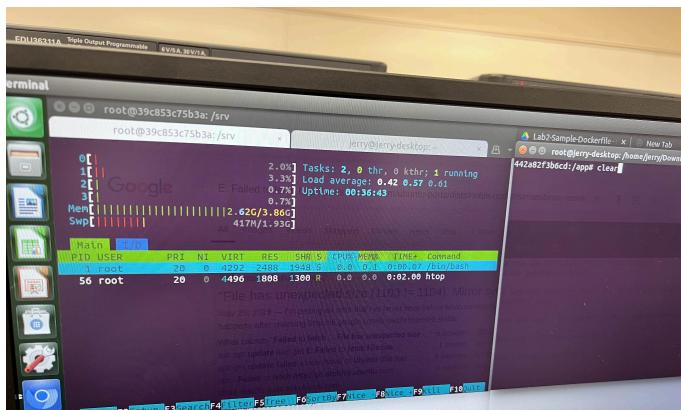
Part 1

Commands to build and run Docker

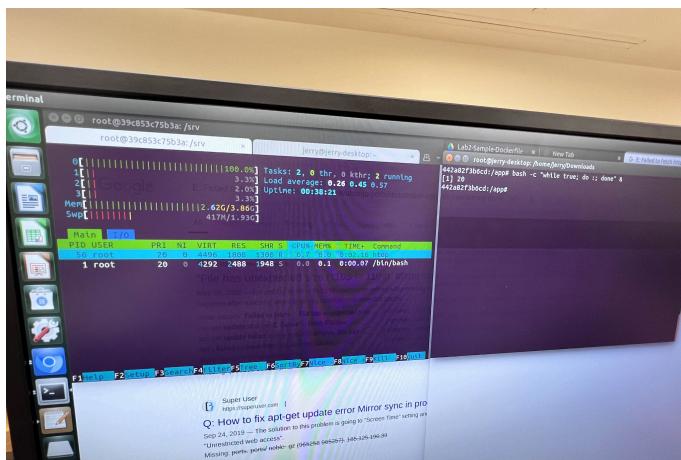
docker build -t test .

docker run test

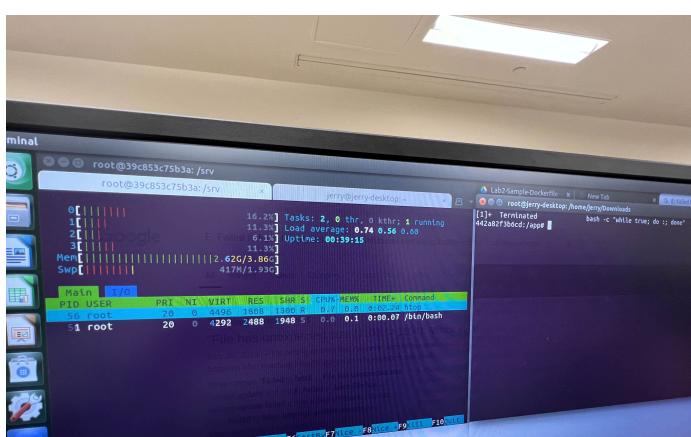
Before



Running



After



Part 3

(1 pts)Q2.1: Exactly how long did it take for detectnet to recognize your images? Explain why?

The total time for CPU was 1591.3551ms and for GPU was 1591.606ms. Without the visualization it took about 1544.3551ms for CPU and 1543.106ms for GPU. So for the actual object detection time we shouldn't consider the visualization if we just want the raw output from the model.

(1 pts)Q2.2: What is the highest and lowest percent confidence for your selected object class?

The highest confidence was the 92.7 while the lowest was 74.7. Strangely enough this was on the same image and the detector classified two bounding boxes for the same plane twice.



(1 pts)Q2.3: Out of all the images you tested, which took the longest?

The airplane took the longest as it had more objects in the image than the other ones we tested such as bird.

(1 pts)Q2.4: Which component has a greater latency for image processing: CUDA or CPU? Please show the latency and explain why.

CUDA has slightly greater latency for image processing however by very little around 0.3 ms.

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[OpenGL] creating 500x375 texture (GL_RGB format, 562500 bytes)
[cuda] registered openGL texture for interop access (500x375, GL_RGB8, 562500
bytes)
[ONNX] saved 'test/airplane_0.jpg' (500x375, 3 channels)

[TRT] the
[TRT] Timing Report /usr/local/bin/networks/SSD-Mobilenet-v2/ssd_mobilenet_v2
[TRT] coco.uff
[TRT] ME sh
[TRT] building
[TRT] subr
[TRT] [TRT] Pre-Process CPU 0.10406ms CUDA 0.92047ms
[TRT] Network CPU 1544.17773ms CUDA 1543.05627ms
[TRT] Post-Process CPU 0.17427ms CUDA 0.17365ms
[TRT] Visualize CPU 46.89904ms CUDA 47.45557ms
[TRT] Total CPU 1591.35510ms CUDA 1591.60596ms
[TRT]
[TRT] note -- when processing a single image, run 'sudo jetson_clocks' before
to disable DVFS for more accurate profiling/timing measurements

[image] imageLoader -- End of Stream (EOS) has been reached, stream has been cl
osed
detectnet: shutting down...
detectnet: shutdown complete.
root@jerry-desktop:/jetson-inference/data/images# █

```

(2 pts)Q2.5: Add screenshot of detectnet with 2 or more objects

