Project MileStone 1 Report

1. Show output of rai running Mini-DNN on the CPU (CPU convolution implemented) for batch size of 1k images

```
* Running bash -c "./m1 1000 && gprof -Q m1 gmon.out > outfile"   \\ Output will appear
after run is complete.
Running test case 1
B = 1 M = 3 C = 3 H = 224 W = 224 K = 3 S = 1
Running test case 2
B = 2 M = 3 C = 3 H = 301 W = 301 K = 3 S = 2
Running test case 3
B = 3 M = 3 C = 3 H = 196 W = 196 K = 3 S = 3
Running test case 4
B = 4 M = 3 C = 3 H = 239 W = 239 K = 3 S = 4
All test cases passed
Test batch size: 1000
Loading fashion-mnist data...Done
Loading model...Done
Conv-CPU==
Op Time: 8801.28 ms
Conv-CPU==
Op Time: 24818.5 ms

Test Accuracy: 0.886
* The build folder has been uploaded to http://s3.amazonaws.com/files.rai-project.com/us
erdata/build-65297ac2f31975656882db4b.tar.gz. The data will be present for only a short
duration of time.
lee@leedeMacBook-Air ECE408 %
```

2. List Op Times (CPU convolution implemented) for batch size of 1k images

   see above result of Op Time

3. List whole program execution time (CPU convolution implemented) for batch size of 1k images

   43.360

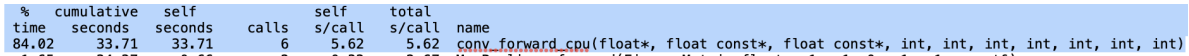
```
Running test case 1
B = 1 M = 3 C = 3 H = 224 W = 224 K = 3 S = 1
Running test case 2
B = 2 M = 3 C = 3 H = 301 W = 301 K = 3 S = 2
Running test case 3
B = 3 M = 3 C = 3 H = 196 W = 196 K = 3 S = 3
Running test case 4
B = 4 M = 3 C = 3 H = 239 W = 239 K = 3 S = 4
All test cases passed
Test batch size: 1000
Loading fashion-mnist data...Done
Loading model...Done
Conv-CPU==
Op Time: 8608.57 ms
Conv-CPU==
Op Time: 24867.2 ms

Test Accuracy: 0.886


real    0m43.360s
user    0m43.235s
sys     0m0.124s
```

4. Show percentage of total execution time of your program spent in your forward pass function with gprof

   84.02%



% time	cumulative seconds	self seconds	calls	self s/call	total s/call	name
84.02	33.71	33.71	6	5.62	5.62	conv_forward_cpu(float*, float const*, float const*, int, int, int, int, int, int, int)