

Milestone1 Report

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

Test batch size: 1000
Loading fashion-mnist data...Done
Loading model...Done
Conv-CPU==
Op Time: 8553.43 ms
Conv-CPU==
Op Time: 24627.1 ms

Test Accuracy: 0.886

* The build folder has been uploaded to <http://s3.amazonaws.com/files.rai-project.com/userdata/build-6343265269ef313ca042b50b.tar.gz>. The data will be present for only a short duration of time.

```
* Running bash -c "./m1 1000 && gprof -Q m1 gmon.out > outfile"  \\ Output will appear after run is complete.
Test batch size: 1000
Loading fashion-mnist data...Done
Loading model...Done
Conv-CPU==
Op Time: 8553.43 ms
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Test Accuracy: 0.886
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```

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

$8553.43 + 24627.1 = 33180.5\text{ms}$

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

Based on the result of gprof, the total execution time is 39.52s.

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

83.93%

Each sample counts as 0.01 seconds.

% time	cumulative seconds	self seconds	calls	self s/call	total s/call	name
83.93	33.17	33.17	2	16.59	16.59	conv_forward_cpu(1