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Assignment Number 1
Instructor: Dr. Pablo Rivas

CMPT 496L-111: Deep Learning w Tensor Flow
Due: 2017-10-05

Assignment 1

Exercise 1. *Run the code below for the current CNN architecture and record the time it took to train (estimate) and its final accuracy; include this in a report.*

Response.

```
2017-10-02 21:10:16.236001: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 2.59GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
2017-10-02 21:10:16.236503: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 1.34GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
2017-10-02 21:10:17.012558: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 3.90GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
Test Accuracy 0.9921
--- 4.6997425198555 minutes ---
```

Exercise 1. *Do the same but change the architecture slightly (e.g., number of feature maps in each convolutional layer), and record the time it took to train (estimate) and its final accuracy; include this in a report.*

- *Action: Reduced the number of neurons by half to see how it would affect running time.*
- *Result: Slightly faster running time slight slightly lower accuracy*

Response.

```
2017-10-02 21:14:51.817643: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 2.59GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
2017-10-02 21:14:51.818143: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 1.34GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
2017-10-02 21:14:52.595602: W C:\tf_jenkins\home\workspace\rel-win\M\windows-
gpu\PY\36\tensorflow\core\common_runtime\bfc_allocator.cc:217] Allocator (GPU_0_bfc) ran out of
memory trying to allocate 3.90GiB. The caller indicates that this is not a failure, but may mean
that there could be performance gains if more memory is available.
Test Accuracy 0.9917
--- 4.054860047499338 minutes ---
```
