www.bitbucket.org/icl/magmadnn – main one
www.bitbucket.org/pcambief/magmadnnworking/src/master/src/ – most updated

Installation

Follow the instructions in Install.md

[CHANGE: Add more info about what exactly these dependencies are and how to install them (?). Also clarify the note about installing dependencies in non-standard paths]

1) Install Magma

[CHANGE: Add info about installing Magma, including architecture]

2) MagmaDNN – Git clone from repository page (HTTPS is simplest?), or alternatively tar
    a) Developer should clone as it's continuously updated, user can use tar
3) OpenCV can be skipped

[CHANGE: some instructions need to be added after `vim make.inc`]

4) May need sudo when doing make install
5) Before `make test`, do `vim ~/.bashrc`

[CHANGE: Add info about this]

    a) add paths to libraries (colon-separated) – /usr/local/magma/lib, /usr/local/magmadnn/lib (before :$LD_LIBRARY_PATH)

```
export LD_LIBRARY_PATH=[path]:[path]:[path]:...:$LD_LIBRARY_PATH
```

    b) After closing the bashrc file (:wq), do `source ~/.bashrc` in order to apply the changes to the bashrc file

[CHANGE: Specify that xdg-open can be used to open files, such as refman.pdf, README.md, html files, etc]
[CHANGE: Specify that when you make, do make ___ -j12, e.g. `make doc -j12`. This way, the make is much faster.]
[CHANGE: Add descriptions to examples – list layers at the top of each example, in code]

[CHANGE: Any changes to Install.md must also be carried over to tutorial 0 – 00_installing.md]

Tutorials

in docs folder
in tutorials folder, tutorial_samples has runnable tutorials

[CHANGE: Add readme for tutorials, including how to compile tutorial files]

1. Hello World

.

2. Tensors

Tensors allow storage of important information – like matrices
4 parameters in the constructor

1. shape – dimensions of tensor (max 4 dimensions?)
2. tensor_filler_t – specifies the data the tensor will be initialized with
3. memory_t – memory type of data
4. device_t – very rarely used

HOST = CPU, DEVICE = GPU

Row major storage – memory is stored by rows

3. Compute Graph

4. Optimizers

[CHANGE: something about momentum and “0.f”]

5. First Neural Network

[CHANGE: Add layers tutorial]
[CHANGE: Clarify code on model.fit line with “labels” – something about MNIST]
[CHANGE: Add a flatten layer in tutorial sample]

[CHANGE: For tutorial sample, add info to readme about sh MNIST]

Software

Layers

In magmadnn/include/layer

[discussion about sparsity in the future]

Layers inherit from *layers.h*

- in a class, virtual methods are ones that must be implemented in classes that inherit from the class

Operations

/include/compute

_grad_cache is a map, used to check if eval has already been done

lstmlayer vs simplelstm
