Buat algoritma perangkingan

Struktur data W ?

W[v][h] ?

[https://groups.google.com/forum/#!topic/theano-users/sEb6Jx83btk](https://groups.google.com/forum/" \l "!topic/theano-users/sEb6Jx83btk)

buat perumpamaan :

input : W

output : index rank

buat contoh kasus :

Index rank : [5 3 2 4] ← ranking

buat pseudocode algoritma perankingan :

membuat testcase : oret2 di kertas :

W layer 1 :

W layer 2 :

W layer 3 :

Buat matrix

ranking dan hapus hiddennya

diskusi saving model :

Hello,

I have used my own dataset and it almost took 8 hours just to pretrain the model (without finetuning). I would love to save the weights and biases for each layer to a file, then at the next time to use it I could simply load the model from the file and skipping the pretraining process. What other considerations should be noted if I were to save the weights and biases *after* finetuning as well?

I have read the Theano documentation on saving/loading models, and also searched this group but the people who encountered the same problem did not obtain a particularly detailed reply. Either that, or they have found solutions very specific to topics outside of DBNs. What solutions would you recommend? Should I be looking into editing the codes within RBM.py instead of DBN.py?

**Below are the threads/topics that I've read (but they didn't help my case...):**

Theano Official Documentation: [http://deeplearning.net/](http://deeplearning.net/tutorial/gettingstarted.html" \l "loading-and-saving-models)

Saving Weights and Biases for *MLP*: [https://groups.google.com/](https://groups.google.com/forum/" \l "!searchin/theano-users/save/theano-users/gWbjkIpSjC4/mL-747Yz-P0J)

Saving Weights and Biases for *Convolutional Networks:*[https://groups.](https://groups.google.com/forum/" \l "!searchin/theano-users/saving/theano-users/tdF_j_JyD24/2iNU8ezProoJ)

Saving & Resuming Model Training: [https://groups.](https://groups.google.com/forum/" \l "!searchin/theano-users/saving$20parameters$20dbn/theano-users/2VwXqQgnBwA/-Xyu-uR4KXwJ)

Save and Load Parameters of *DBN*: [https://groups.google.](https://groups.google.com/forum/" \l "!searchin/theano-users/save$20parameters$20dbn/theano-users/GLcmlLoONic/u8KFFuG9JEMJ)

Thank you very much!

- Cage

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On Mon, Oct 20, 2014, Cage Lawrence wrote:   
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> model (without finetuning). I would love to save the weights and biases for   
> each layer to a file, then at the next time to use it I could simply load   
> the model from the file and skipping the pretraining process. What other   
> considerations should be noted if I were to save the weights and biases

> \*after\* finetuning as well?   
  
One easy way, but maybe not the most flexible, would be to have a `save`   
method in DBN, that would get all the (vbias, W, hbias) parameter   
for all the RBMs, and for the final softmax layer (W and b). For   
each of these shared variables, you can then call numpy.save on the   
value returned by that\_var.get\_value(), so each of them is saved in a   
different .npy file.   
  
Then, in a `load` method, you could load them all and put them in shared   
variables, then go through the logic of `\_\_init\_\_` again, but specifying   
all the parameters for all of the components, instead of leaving some   
of them with the default value. For instance, you will have to provide   
vbias to the constructor of `RBM`.   
  
After fine-tuning is essentially the same thing, except that the value   
for the visible biases would not be used (and not change) during   
fine-tuning.   
  
If you want to try different hyper-parameters (sizes of layers, and so   
on), you can also create a file containing those values (maybe as a   
dictionary) in DBN.save, and use it in DBN.load.

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>   
> Thank you very much!   
>   
> - Cage

**Thank you very much for your help, Pascal!** I am now able to save the weights and biases by simply using the get\_value function as suggested to acquire the weights and biases of each RBM layers at the end of the pretraining phase. If loading the pretrained model is desired, I skipped the pretraining portion of the code entirely and the values (W, hbias, vbias) are reassigned using set\_value() prior to finetuning.