Subject: Re: Neural Networks
Posted by d.poreh on Tue, 12 Aug 2008 05:50:43 GMT
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On Jul 27, 2:13 pm, Chris <beaum...@ifa.hawaii.edu> wrote:
> On Jul 26, 11:13 pm, "|Rob|" <r08...@gmail.com> wrote:
>
>
>
>> Hi all,
>
>> I posted a query on here about a year ago relating toneuralnetworks
>> in IDL but I didn't get any response so I thought it might be worth
>> trying again.
>
>> The problem I'm currently working on for my PhD breaks down to
>> matching a known pattern/signature against a huge amount of data to
>> find cases where the pattern is present.
>
>> I don't know that much aboutneuralnetworks (just a few undergraduate
>> lectures on the basic principles) or exactly how I'd go about
>> implementing something like this but it seems that IDL is fairly well
>> suited to this kind of task due to it's ability to sort and match
>> large arrays of data.
>
>> Have many people worked onneuralnetworks in IDL before? I haven't
>> had much luck searching the group for answers apart from a few old
>> (and very old!) posts on the subject asking pretty much the same as I
>> am.
>
>> I'd much prefer to use IDL for this if possible but I'm starting to
>> wonder whether something like Matlab might be better suited as there
>> seems to be quite a bit more documentation and example code for using
>> neuralnetworks in IDL.
>
>> Cheers
>
>> Rob
>
> I haven't used IDL for NN programming, though I've been interested in
> the idea.
>
> My suspicion is that, while you could probably implement a pre-learnedneuralnetwork in IDL, it would not be efficient at actually learning
> the proper weights. Typical algorithms for learning NN weights (eg
> backpropagation) are dominated by looping. IDL usually chokes on such
> tasks unless there is a way to eliminate some of the loops by using
> its optimized array operations. I may be wrong, but I don't think a

> nonlinear, iterative process like backpropagation could be vectorized
> very much.
>
> For general info on implementing NNs, I might look at Tom Mitchell's
> "Machine Learning," and maybe some open source implementations (like
> JOONE for Java)
>
> chris

look at Morton Canty's book:
Image aanalysis and pattern recognition for remote sensing page 100-
Cheers
