Subject: neural networks
Posted by Elfonso on Tue, 22 Feb 2000 08:00:00 GMT
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Do you know some neural networks library for IDL 5.2?

Thanks in advance

Subject: Re: Neural Networks
Posted by Chris[6] on Sun, 27 Jul 2008 12:13:18 GMT
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On Jul 26, 11:13 pm, "|Rob|" <r08...@gmail.com> wrote:
> Hi all,
>
> I posted a query on here about a year ago relating to neural networks
> 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 about neural networks (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 on neural networks 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
> neural networks 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-learned

neural network 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

Subject: Re: Neural Networks
Posted by d.poreh on Tue, 12 Aug 2008 05:50:43 GMT

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