

6)1	Backforofagation Algorithms
	Initialre all weights to small orandom
	For each tegining example, Do
<u> </u>	For each training example, Do Input the training example to the network and Compute the network output
	and compute the network output
P. )	For each outfut unit k
	Sr = Or (1-Or) (tr-or)
(ii)	For each hidden unit h
	She on (1-on) & which
(ړ :	Update each network weight wiji
	wi,j - wi,j + Lwi,j
	where, Awi, = nd, xi
อ	Geradient descent over entire network weight vector  Easily generalized to arbitrary directed geath will find a local, not necessarily global
	vector
o	Easily generalized to arbitrary directed geal
c	Will find a local, not necessarily global
0	Often include weight momentum of
11	$\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$
	Dwij(n) = nSi, Kij + LD wi, j(n-1)
0	Minimizes over teaining examples
0	Minimizes over teaining examples Training (an take thousands of iterations
0	Dwij(n) = NSi, Kij + & Dwi, j(n-1)  Minimizes oronou over teraining examples  Teraining can take thousands of iteratione  Using network after training is very fast
0	Often include weight momentum of  Nwi,j(n) = NSi, xi,j + oldwi,j(n-1)  Minimizes orange over teraining examples  Teraining (an take thousands of iterations  Using network after training is very fast.
0	Dwi,j(n) = NSi, Ki,j + & Dwi, j(n-1)  Minimizes oronous over teraining examples  Training (an take thousands of iterations  Using network after training is very fast.
0	Dwi,j(n) = NSj, xi,j + LDwi, j(n-1)  Minimizes orever over teraining examples  Teraining (an take thousands of ?teratione  Using network after training ?s very fast.
0	Dwi,j(n) = NSj, xi,j + & Dwi, j(n-1)  Minimizes orenous over teraining examples  Teraining can take thousands of iterations  Using network after training is very fast.
0	Dwi,j(n) = NSi, xi,j + & Dwi, j(n-1)  Minimizes orenou over teaining examples  Tenaining (an take thousands of iterations  Using network after training is very fast.



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/	Site evidence
	indirect evidence into a single analysis.  Able to produces result for all
00)	Alole to produces ocsult for all
	1 ten of t
	netoork within a Connected
111)	It is able to directly calculate the foobability that each doing is the best treatment
	larobability that each day is the best
	treatment
	It is able to adjust for correlations within multi-arm toraigh
	within multi-arm teraials
	It is able to inconforate meta negression to axes heterogencity all within one model.
	to akers heterogencity all within one
	model.
Vi)	Affects to produce valid eccurate negults
	Aglears to produce valid , eccurate negults for the stern and ladder network fatterns
	$Sin(n) + \sqrt{n^2 + y}$
	$\frac{\sin(n) + \sqrt{n^2 + y}}{\Phi}$
	$\frac{\sin(n) + \sqrt{n^2 + y}}{\Phi}$
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	$\frac{\text{gin}(n) + \sqrt{n^2 + y}}{\text{D}}$ $\frac{\text{D}}{\text{D}}$ $\frac{\text{D}}{\text{D}}$ $\frac{\text{D}}{\text{D}}$ $\frac{\text{D}}{\text{D}}$
	Sin(n) + $\sqrt{x^2 + y}$ $\Phi$ $\Phi$ $\Phi$ $\Phi$ $\Phi$ $\Phi$ $\Phi$