
Subject: Re: Looking for a search routine

Posted by [Liam Gumley](#) on Mon, 27 Nov 1995 08:00:00 GMT

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jvkepner@airy.Princeton.EDU (Jeremy Kepner) wrote:

> I have two 1D floating point vectors X and Y.
> Y contains values sorted in increasing order. I am
> looking for a function that for each element in the
> X array, X(i), will return the index of the element in the
> Y array that is nearest to X(i). Ideally it would
> be a function that would look something like
>
> y_ids = SEARCH(X,Y)

For each element of X, to find the index of the closest value in Y, do

$D = \text{MIN}(\text{ABS}(Y-X(I)), \text{LOC})$

where I is the loop index for X, and LOC is the index of the closest value in Y.

You might be able to do this without a loop, but I'm not sure exactly how.

Cheers,
Liam.
