

```
function [predicted_vector predicted_class prediction_row diff_vector] = find_NN(input_vector, data_matrix,N)

diff_vector = sum((input_vector(1:N) - data_matrix(:,1:N)).^2,2); %we ignore the hidden classifier dimension N+1

[x y] = min(diff_vector);

predicted_vector = data_matrix(y,:);
predicted_class = predicted_vector(N+1);
prediction_row = y;

endfunction
```