

Hebb Function:

This function takes as input a list of patterns in raw format and outputs the weight matrix using these patterns as training data. The network is assumed to be the same as the one described in Figure 7.2, pg. 7-11.

```
function weights = hebb(train_data)
    weights = zeros([30 30]);
    for i=1:size(train_data, 3)
        input = reshape(train_data(:,:,i), [30, 1]);
        % W = sum(p_q*t_q')
        % However because we are building an autoassociative memory, we
        % have t_q equal to the input patterns, p_q, in order to memorize them.
        weights = weights + input*input';
    end
end
```