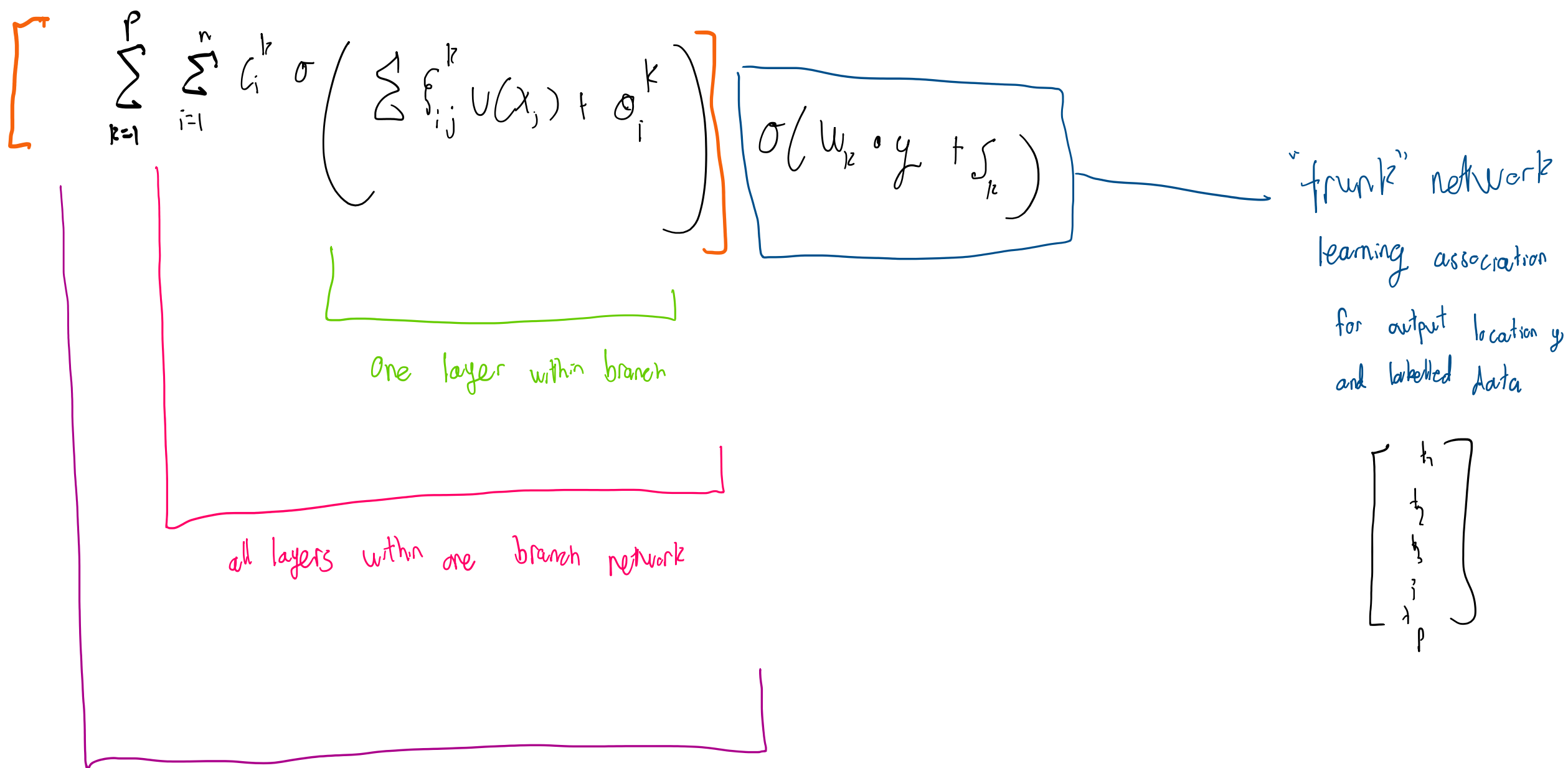UAT

$$\left| G(u)(y) - \sum_{k=1}^{p} \sum_{i=1}^{n} c_i^k \, \sigma \left(\sum \xi_{i,j}^k \, U(x_j) + \theta_i^k \right) \sigma(w_k \cdot y + \zeta_k) \right| < \varepsilon$$

the network:

"Branch" network

$$\sum_{k=1}^{p} \sum_{i=1}^{n} c_i^k \, \sigma \left(\sum \xi_{i,j}^k \, U(x_j) + \theta_i^k \right) \quad \sigma(w_k \cdot y + \zeta_k)$$

"trunk" network

learning association for output location y and labelled data

$$\begin{bmatrix} t_1 \\ t_2 \\ t_3 \\ \vdots \\ t_p \end{bmatrix}$$

One layer within branch

all layers within one branch network

Several branch networks, multiple U

(unstacked) $\begin{bmatrix} b_1 \\ b_2 \\ b_3 \\ \vdots \\ b_p \end{bmatrix}$

Inner product operation

on sub network outputs