$$\begin{array}{c} a_{1}^{(0)} \\ a_{1}^{(0)} \\ w_{1,1} \\ a_{2}^{(1)} \\ w_{2,3} \\ a_{2}^{(1)} \\ w_{1,4} \\ a_{3}^{(1)} \\ a_{3}^{(1)} \\ a_{4}^{(1)} \\ \vdots \\ a_{m}^{(1)} \\ \end{array} = \sigma \left(\sum_{i=1}^{n} w_{1,i} a_{i}^{(0)} + w_{1,1} a_{1}^{(0)} + \dots + w_{1,n} a_{n}^{(0)} + b_{1}^{(0)} \right) \\ = \sigma \left(\sum_{i=1}^{n} w_{1,i} a_{i}^{(0)} + b_{1}^{(0)} \right) \\ = \sigma \left(\sum_{i=1}^{n} w_{1,i} a_{i}^{(0)} + b_{1}^{(0)} \right) \\ \vdots \\ w_{n,0} \quad w_{2,1} \quad \dots \quad w_{2,n} \\ \vdots \\ w_{m,0} \quad w_{m,1} \quad \dots \quad w_{m,n} \right) \begin{pmatrix} a_{1}^{(0)} \\ a_{2}^{(0)} \\ \vdots \\ b_{n}^{(0)} \end{pmatrix} + \begin{pmatrix} b_{1}^{(0)} \\ b_{2}^{(0)} \\ \vdots \\ b_{m}^{(0)} \end{pmatrix} \right] \\ \vdots \\ a_{n}^{(0)} \\ a_{n}^{(0)} \\ \end{array}$$