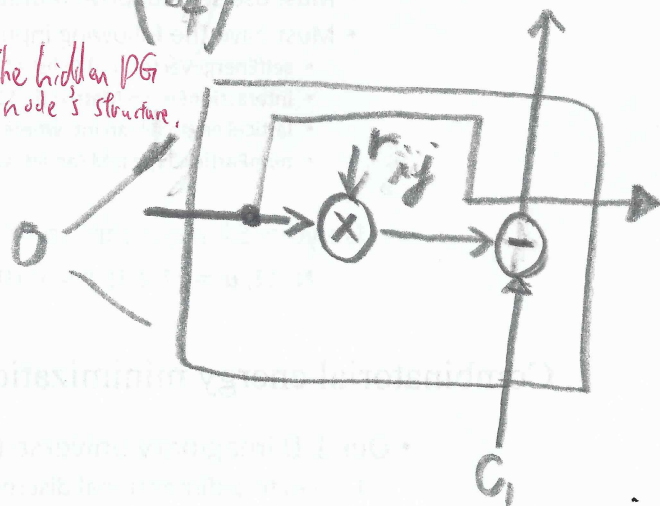


①. From equation listed,  

$$y_i = C_i - \langle r, b_j \rangle$$

$$b_j = \begin{pmatrix} b_{j1} \\ b_{j2} \\ b_{j3} \\ b_{j4} \end{pmatrix}$$

③. The hidden DFG node's structure.



④. Find suitable  $\vec{z}, \vec{d}$  for systolic architecture.

b)  $\vec{z} = \begin{pmatrix} 1 \\ 1 \end{pmatrix}, \vec{d} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}, \vec{p} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

Check

$\langle \vec{z}, \vec{d} \rangle = 1 \neq 0$   
 $\langle \vec{z}, \vec{e} \rangle \geq 0, \forall e$

$\Rightarrow M = \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}, C: \begin{pmatrix} 1 \\ 1 \end{pmatrix}, b: \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

