

$$\bar{y}_k = f(y_i) = \frac{1}{v_{k+1} - v_k + 1} \sum_{i=v_k}^{v_{k+1}} y_i$$

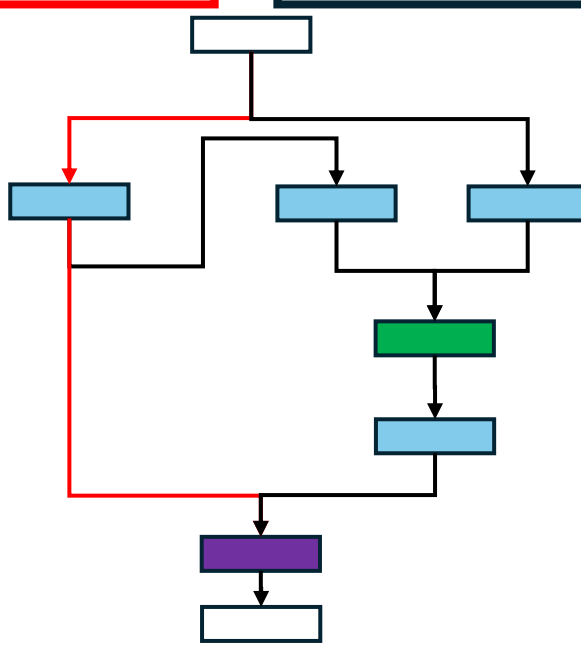
$$b_k = h(y_i) = \frac{\sum_{i=v_k}^{v_{k+1}} (t_i - \bar{t}_k)(y_i - \bar{y}_k)}{\sum_{i=v_k}^{v_{k+1}} (t_i - \bar{t}_k)^2}$$

$$\vec{\bar{y}}_k = \begin{bmatrix} \bar{y}_1 \\ \bar{y}_2 \\ \vdots \\ \bar{y}_k \end{bmatrix} = \begin{bmatrix} \frac{1}{l_1} & \dots & \frac{1}{l_1} & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{l_2} & \dots & \frac{1}{l_2} & \dots & 0 & 0 & 0 \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \dots & \vdots & \vdots & \vdots \\ 0 & 0 & 0 & 0 & 0 & 0 & \dots & \frac{1}{l_k} & \dots & \frac{1}{l_k} \end{bmatrix} \cdot \begin{bmatrix} y_1 \\ y_2 \\ \vdots \\ y_i \end{bmatrix}$$

$$\vec{b}_k = \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_k \end{bmatrix} = \frac{\begin{bmatrix} \frac{1}{l_1} & \dots & \frac{1}{l_1} & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{l_2} & \dots & \frac{1}{l_2} & \dots & 0 & 0 & 0 \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \dots & \vdots & \vdots & \vdots \\ 0 & 0 & 0 & 0 & 0 & 0 & \dots & \frac{1}{l_k} & \dots & \frac{1}{l_k} \end{bmatrix} \cdot \left(\begin{bmatrix} y_1 \\ \vdots \\ y_{l_1} \\ y_{l_1+1} \\ \vdots \\ y_{l_2} \\ \vdots \\ y_k \end{bmatrix} - \begin{bmatrix} \bar{y}_1 \\ \vdots \\ \bar{y}_1 \\ \bar{y}_2 \\ \vdots \\ \bar{y}_2 \\ \vdots \\ \bar{y}_k \end{bmatrix} \right) \cdot \left(\begin{bmatrix} t_1 \\ \vdots \\ t_{l_1} \\ t_{l_1+1} \\ \vdots \\ t_{l_2} \\ \vdots \\ t_i \end{bmatrix} - \begin{bmatrix} \bar{t}_1 \\ \vdots \\ \bar{t}_1 \\ \bar{t}_2 \\ \vdots \\ \bar{t}_2 \\ \vdots \\ \bar{t}_k \end{bmatrix} \right)}{\left(\begin{bmatrix} t_1 \\ \vdots \\ t_{l_1} \\ t_{l_1+1} \\ \vdots \\ t_{l_2} \\ \vdots \\ t_i \end{bmatrix} - \begin{bmatrix} \bar{t}_1 \\ \vdots \\ \bar{t}_1 \\ \bar{t}_2 \\ \vdots \\ \bar{t}_2 \\ \vdots \\ \bar{t}_k \end{bmatrix} \right) \cdot \left(\begin{bmatrix} t_1 \\ \vdots \\ t_{l_1} \\ t_{l_1+1} \\ \vdots \\ t_{l_2} \\ \vdots \\ t_i \end{bmatrix} - \begin{bmatrix} \bar{t}_1 \\ \vdots \\ \bar{t}_1 \\ \bar{t}_2 \\ \vdots \\ \bar{t}_2 \\ \vdots \\ \bar{t}_k \end{bmatrix} \right)}$$

$\vec{\bar{y}}_k$

$\vec{b}_k$



NN-Layer Legend

