

$$Data := \begin{bmatrix} 1 & 1 \\ 2 & 2 \\ 3 & NaN \\ 4 & 4 \\ 5 & 5 \end{bmatrix}$$

$$FilterNna(M) := \text{try} \begin{cases} \parallel \text{filterNaN}(M) \\ \text{on error} \\ \parallel M \end{cases}$$

$$FilterNna(Data^{(1)}) = \begin{bmatrix} 1 \\ 2 \\ 4 \\ 5 \end{bmatrix}$$

$$FilterNna(Data^{(0)}) = \begin{bmatrix} 1 \\ 2 \\ 3 \\ 4 \\ 5 \end{bmatrix}$$

$$i := 0..1$$

$$S^{(i)} := FilterNna(Data^{(i)})$$

$$S = \begin{bmatrix} 1 & 1 \\ 2 & 2 \\ 3 & 4 \\ 4 & 5 \\ 5 & 0 \end{bmatrix}$$

$$FilterFK(M) := \begin{cases} \parallel nc \leftarrow \text{cols}(M) \\ \parallel \text{if } nc = 1 \\ \parallel \parallel \text{return } FilterNna(M) \\ \parallel \text{else} \\ \parallel \parallel ct \leftarrow 0 \\ \parallel \parallel \text{for } i \in 0..rows(M)-1 \\ \parallel \parallel \parallel flg \leftarrow 0 \\ \parallel \parallel \parallel \text{for } j \in 0..nc-1 \\ \parallel \parallel \parallel \parallel \text{if } IsNaN(M_{i,j}) \\ \parallel \parallel \parallel \parallel \parallel flg \leftarrow 1 \\ \parallel \parallel \parallel \text{if } flg = 0 \\ \parallel \parallel \parallel \parallel \hat{ans}^{ct} \leftarrow M^i \\ \parallel \parallel \parallel \parallel ct \leftarrow ct + 1 \\ \parallel \parallel \parallel flg \leftarrow 0 \\ \parallel \parallel \text{return } ans \end{cases}$$

$$Tst := \begin{bmatrix} 1 & 1 & 1 & 1 \\ 2 & NaN & 2 & 2 \\ 3 & 3 & 3 & NaN \\ 4 & 4 & 4 & 4 \\ 5 & 5 & 5 & 5 \end{bmatrix}$$

$$FilterFK(Data) = \begin{bmatrix} 1 & 1 \\ 2 & 2 \\ 4 & 4 \\ 5 & 5 \end{bmatrix}$$

$$FilterFK(Tst) = \begin{bmatrix} 1 & 1 & 1 & 1 \\ 4 & 4 & 4 & 4 \\ 5 & 5 & 5 & 5 \end{bmatrix}$$