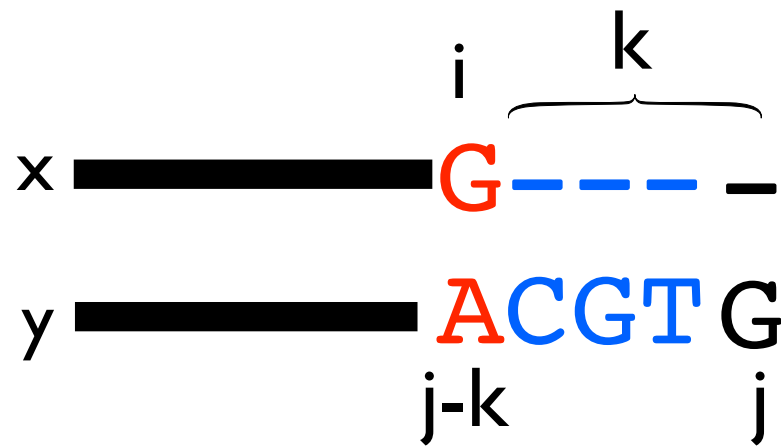


The X (and Y) matrices



k decides how long to make the gap.

We have to make the whole gap at once in order to know how to score it.

$$X[i, j] = \max \begin{cases} M[i, j - k] - \text{gap}(k) & \text{for } 1 \leq k \leq j \\ Y[i, j - k] - \text{gap}(k) & \text{for } 1 \leq k \leq j \end{cases}$$

