

Algorithm for Computing Edit Distance

Consider the last characters of each string:

$$\begin{aligned}a &= a_1a_2a_3a_4\dots a_m \\ b &= b_1b_2b_3b_4\dots b_n\end{aligned}$$

One of these possibilities must hold:

1. (a_m, b_n) are matched to each other
2. a_m is not matched at all
3. b_n is not matched at all
4. a_m is matched to some b_j ($j \neq n$) and b_n is matched to some a_k ($k \neq m$).