

# Gibbs Sampling, Version 1: Pseudocode

Set  $(x_1, x_2, \dots, x_p)$  to random positions in each input string.

**repeat until** the answer  $(x_1, x_2, \dots, x_p)$  doesn't change

**for**  $i = 1 \dots p$ :

        Build a profile  $Q$  using sequences at  $(x_1, x_2, \dots, x_p)$  except  $x_i$

        Set  $x_i$  to where the profile  $Q$  matches **best** in string  $i$ .