

Sequence alignment

Goal: find min-cost alignment between two sequences

Example: **AATC** Cost
 ATCA

- Mismatch
- Gap

6.00x – Dynamic Programming

Subproblems

$as1, as2, cost = align(s1, s2)$

- Align $s1[0]$ and $s2[0]$
 Subproblem:
- Align $s1[0]$ with gap in $s2$
 Subproblem:
- Align $s2[0]$ with gap in $s1$
 Subproblem:

6.00x – Dynamic Programming