

Sticky-favoring CRF over vocab {0,1}. Factor scores are in log-scale additive form

$$G(y_1, y_2, y_3) = A(y_1, y_2) + A(y_2, y_3) + B_1(y_1) + B_2(y_2) + B_3(y_3)$$

$$\text{Find: } y^* = \operatorname{argmax}_{y_1, y_2, y_3} G(y_1, y_2, y_3)$$

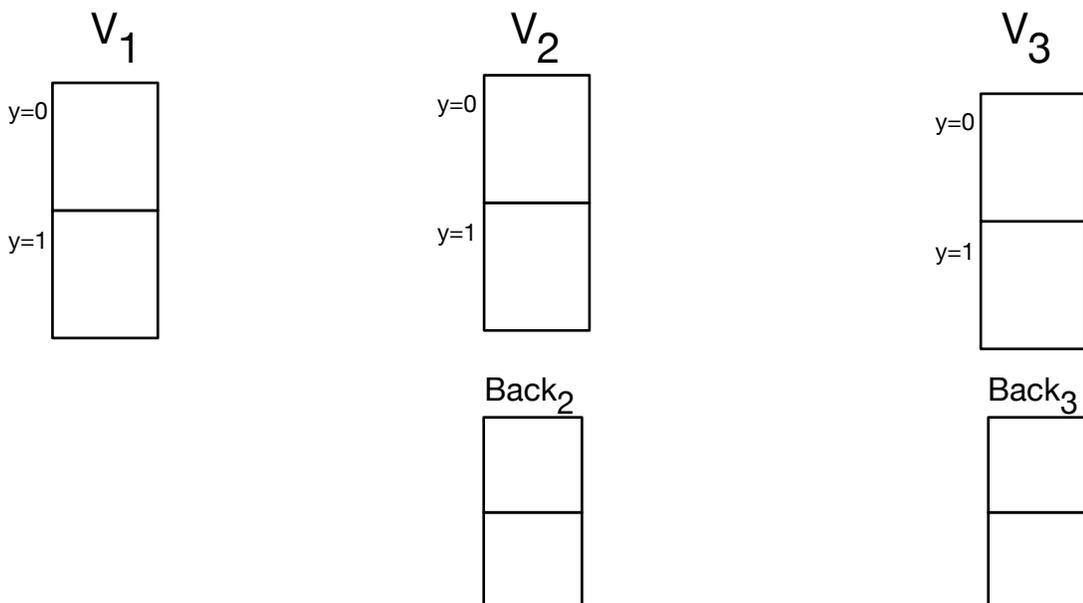
Most probable sequence: $y^* =$
 $G(y^*) =$

For $t=1..T$,
 For k in $\{0,1\}$,
 Viterbi in additive form....

$$V_t[k] := \max_j (V_{t-1}[j] + A(j, k) + B_t(k))$$

$$Back_t[k] := \operatorname{argmax}_j (\dots)$$
 For $t=1$, assume $A_0(\text{anything})=0$ and $V_0(\text{anything})=0$
 Final backtrace step: take best-scoring from last V_T , follow the backpointers all the way back

Run Viterbi and fill out the trellis with arcs like in the textbook's HMM example.
 Please put the Viterbi probabilities and backpointer values in below.



Solution should be the same as above $y^* = (\quad , \quad , \quad)$