Machine learning 2
Exercise sheet 10

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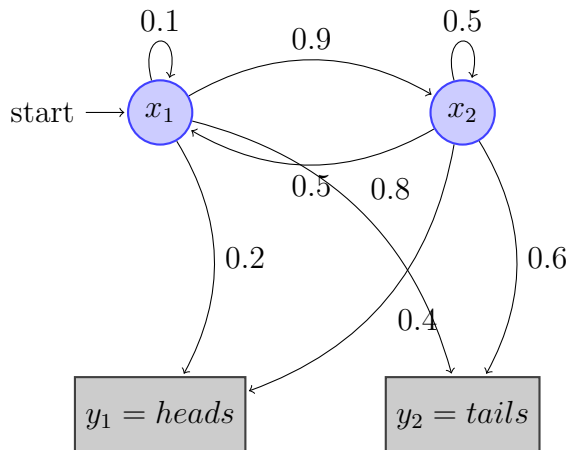
Hidden Markov Model

Let $A_{i,j}$ the transition matrix between hidden states x_i and x_j. $B_{i,j}$ is the the probability, beeing in state x_i to observe y_j. The following matrices A and B describe two hidden states and two possible observations.

$$A = \begin{pmatrix} 0.1 & 0.9 \\ 0.5 & 0.5 \end{pmatrix}$$

$$B = \begin{pmatrix} 0.2 & 0.8 \\ 0.4 & 0.6 \end{pmatrix}$$

The Hidden-Markov-chain for A and B looks like the following4

(a) Implementation of Viterbi algorithm

(b) Experiment