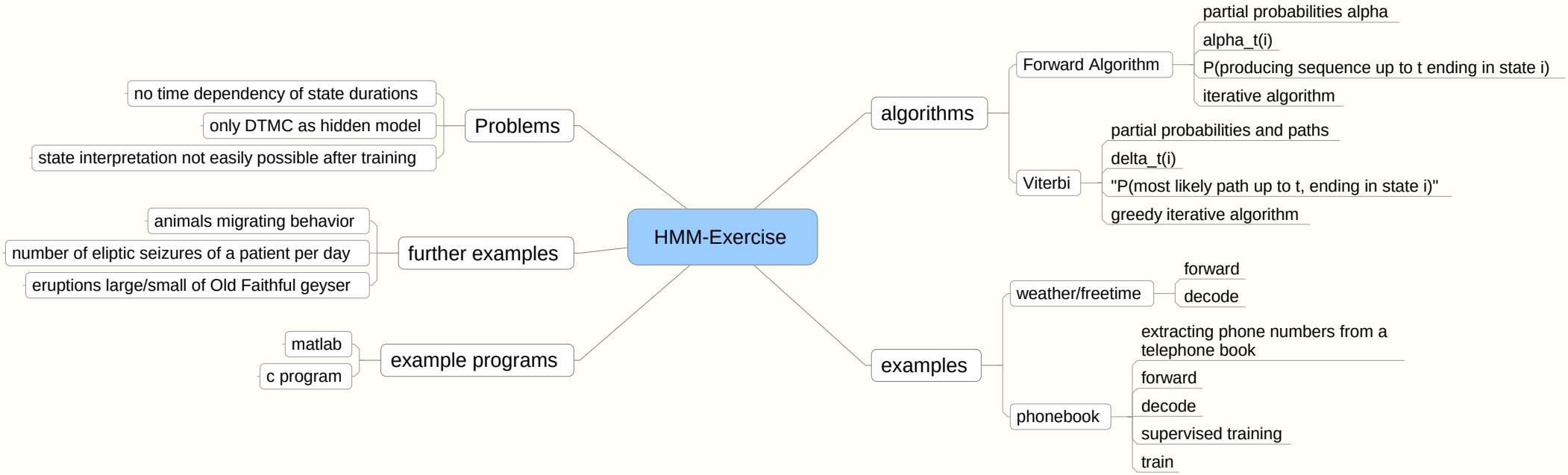
HMM-Exercise
Problems
no time dependency of state durations
only DTMC as hidden model
state interpretation not easily possible after training
further examples
animals migrating behavior
number of eliptic seizures of a patient per day
eruptions large/small of Old Faithful geyser
example programs
matlab
c program
algorithms
Forward Algorithm
partial probabilities alpha
alpha_t(i)
P(producing sequence up to t ending in state i)
iterative algorithm
Viterbi
partial probabilities and paths
delta_t(i)
"P(most likely path up to t, ending in state i)"
greedy iterative algorithm
examples
weather/freetime
forward
decode
phonebook
extracting phone numbers from a telephone book
forward
decode
supervised training
train