Given an alphabet α and a pattern P, we need to know where α appears in P.

This information is contained in a vector Σ(α) which is defined as follows:
Σ(α)[i]=1 if p_i=α .
Σ(α)[i]=0 if otherwise.

Example: P : aabac
Σ(a) =(1,1,0,1,0)
Σ(b) =(0,0,1,0,0)
Σ(c) =(0,0,0,0,1)