

Rosalyn Tan
CSE 40657
HW 5 Option A

1. Line 1: $\log P(\mathbf{f}|\mathbf{e}) = -29.75829773495849$
Line 2: $\log P(\mathbf{f}|\mathbf{e}) = -7.919597206475263$
Line 3: $\log P(\mathbf{f}|\mathbf{e}) = -16.36530328442846$
Line 4: $\log P(\mathbf{f}|\mathbf{e}) = -22.128913938907854$
Line 5: $\log P(\mathbf{f}|\mathbf{e}) = -17.963379843049626$
2. Iteration 0 log-probability: -32819.8398447001
Iteration 1 log-probability: -31985.407177704034
Iteration 2 log-probability: -30159.997146683367
Iteration 3 log-probability: -29597.504855574312
Iteration 4 log-probability: -29330.92891956239
Iteration 5 log-probability: -29162.63774854276
Iteration 6 log-probability: -29045.411191276333
Iteration 7 log-probability: -28951.57127934593
Iteration 8 log-probability: -28873.2349848216
Iteration 9 log-probability: -28793.404963647405
Iteration 10 log-probability: -28700.698168868425

$t(\text{绝地}|\text{jedi}) = 0.5363809590770554$
 $t(\text{机械人}|\text{droid}) = 0.38983641621139636$
 $t(\text{原力}|\text{force}) = 0.8495016997036383$
 $t(\text{原虫}|\text{midi-chlorians}) = 0.20291822714084087$
 $t(\text{你}|\text{yousa}) = 0.22204542477706696$

3. Alignments for first five lines:
0-3 2-3 3-3 4-3 5-3 6-3
0-1 1-1
0-0 1-0 2-0 3-0 4-5
0-0 1-0 2-0 3-0 4-0 5-0
0-6 1-6 2-0 3-6 4-8

With NULL alignments:
predicted alignments: 6847
true alignments: 11177
matched alignments: 4503
precision: 0.6576602891777421
recall: 0.4028809161671289
F1 score: 0.49966711051930757