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Homework 2

Instructions:

- In the directory, "train.py --test"
- To re-train the data, you would run the option "train.py –train"

Problems arise when predicting the sequences. The sequences predict a continuous string of the final hidden state. The error likely comes from implementation of the Baum-welch algorithm, more specifically a mistake around re-estimating the transition matrix:

```
>>> npzfile['Transmission']
array([[0.47867414, 0.1564917 , 0.05391168, 0.         ],
       [0.        , 0.47752665, 0.16450881, 0.03320831],
       [0.        , 0.        , 0.7090164 , 0.14312447],
       [0.        , 0.        , 0.        , 1.37784902]])
>>>
```

As one can see, the transition probability from the final hidden state to itself is greater than 1