

STATISTICAL NATURAL LANGUAGE PROCESSING  
BRANDEIS UNIVERSITY  
FALL 2015

---

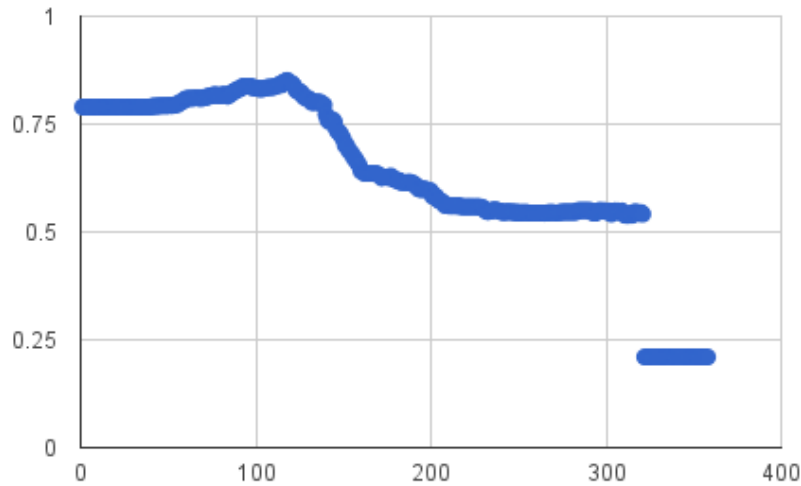
PA3: Thai Word Segmenter - Linear-Chain  
Conditional Random Fields

---

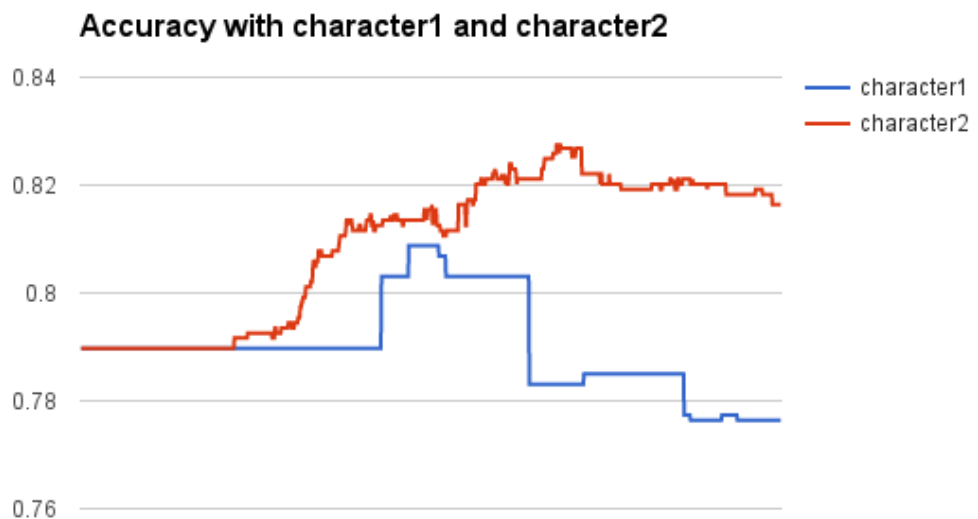
Huilin Gang  
November 17, 2015

## 1 Conditional Random Fields

The unregularised standard CRF performs overfitting and overflow during the experiment.



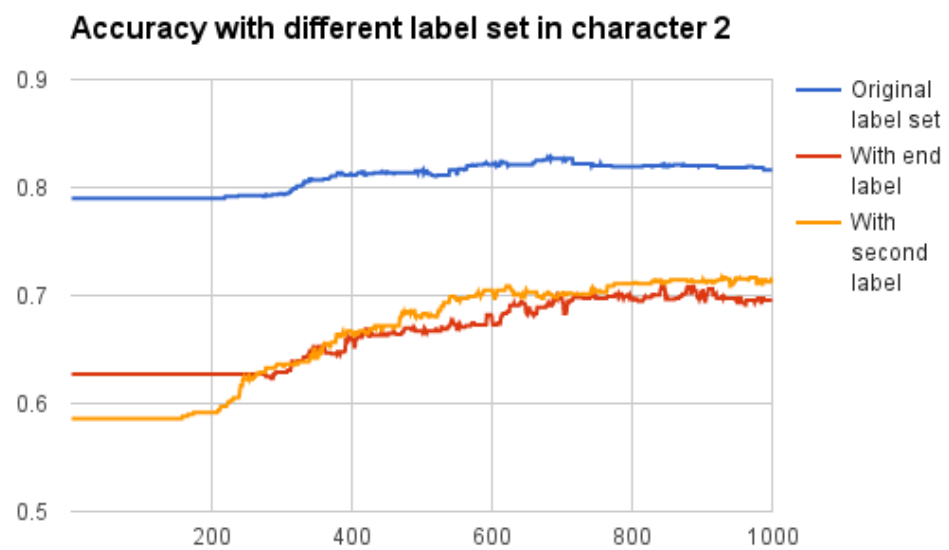
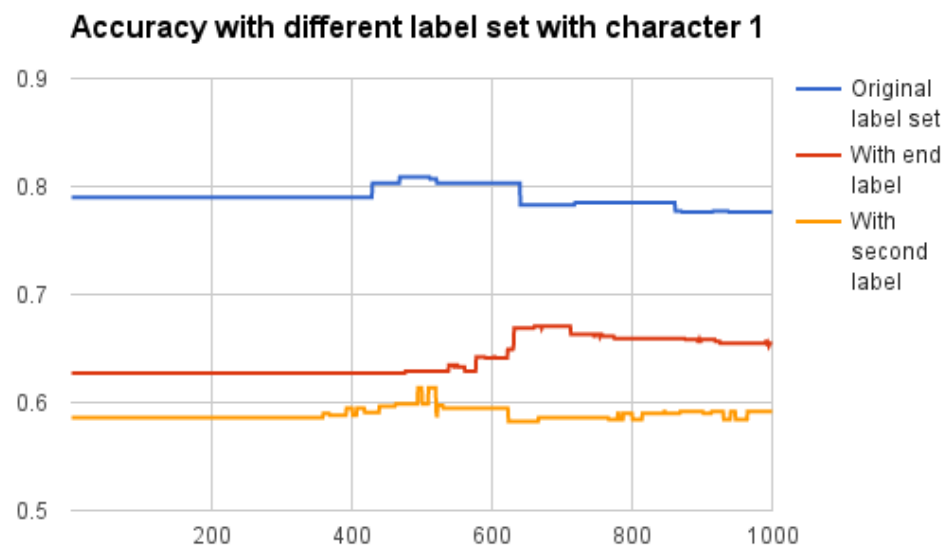
Therefore, I implemented base log to avoid overflow in CRFs. After implemented base logarithm, the accuracy of CRFs looks like below:



## 2 Experiment

Label Sets The current label set only distinguishes the beginning of the word and the non-beginning of the word. For the experiment, I tag the end of the word and also the

second place of the word. I tested both of the label set and the accuracy looks like below:



From what I have experimented, the best result came from the original label set.