Assignment 3

L445/L515
Grammar Checking & Language Learning

Due Friday, September 30

1. Do question #6 in chapter 2 of the draft textbook (p. 80–81) ... but, instead of evaluating spelling errors, evaluate grammar errors.

2. Interview someone taking a language course here at Indiana.
   (a) How far along are they in their acquisition of this language?
   (b) Identify a problematic area in their language learning. In particular, walk me through at least 2 example sentences where they received negative feedback and explain what happened.
   (c) Design an exercise that would address their need. Consider the following in designing the exercise:
      • What kind of exercise best addresses their particular problem?
      • What kind of feedback do they prefer?
      • What level of users would this be appropriate for?
      • Can this be implemented on a computer, and if so, what technology is needed? Specifically, what kind of NLP technology is needed?

3. When Ross guest-lectured, he talked about using machine learning to predict the correct preposition in English sentence and to predict where commas should be inserted.
   (a) How would we adapt this machine learning strategy for predicting where there should be *the, a(n)*, or no article in English?
   (b) Would this approach be a good idea to predict the correct verb form for subject-verb agreement? Why or why not? What about for predicting the correct pronoun in English (e.g., *he* vs. *him* vs. *his*)?

4. • Make sure you have access to a computer that has Python.
   • Write a short program in Python which takes a variable storing the string "Hello world", calculates its length, and then prints out the fourth through sixth characters, using string slices.
   (This isn’t a very difficult or interesting program, but should ensure that you can at least get a toy program working.)