CIS 4930 NLP // HW #11 // Spring 2018

Date Assigned: April 20, 2018
Date Due: April 29, 2018

Submission Format

You will submit a soft copy of your solution using e-Learning (http://elearning.ufl.edu) by the end of the day (23:59 / 11:59 PM) on the assigned date (April 29). Submit one file, **hw11.py**.

Assignment

At the top of every solution file you submit this semester include: your name, section number, the assignment number, and the date due. Complete the following exercises.

Exercises

1. Implement the function *noun_phrase*. The function will tag a pattern to cover noun phrases (NP) that contain gerunds, e.g. "the/DT receiving/VBG end/NN", "assistant/NN managing/VBG editor/NN". Add these patterns to the existing NP grammar, one per line. Return the tagged result. Receive an untagged sentence. Test your work using some tagged sentences of your own devising. Provide a simple interface allowing the user to select their own sentence to enter or to choose one of your sample sentences.

2. Create a context-free grammar that will parse instructions composed as binary strings (sequence of 0s and 1s). Instructions can be 64-bits or 32-bits in length. Two 32-bit instruction compose a 64-bit instruction. As always, 8-bits make up a *byte*. In addition, we will use 4-bits to compose a *word*. Here are example breakdowns for two different instructions.