CS 6840: Natural Language Processing
Fall 2019

Class Meetings: Tue, Thu 9:00am – 10:20am, ARC 159
Instructor: Razvan Bunescu
Office: Stocker 341
Office Hours: Tue, Thu 3:00 – 4:00pm, or by email appointment
Email: bunescu @ ohio edu
Class Website: http://ace.cs.ohio.edu/~razvan/courses/nlp6840

Prerequisites:

Students are expected to be comfortable with programming in Python and have basic knowledge of formal languages (regular and context free grammars), linear algebra, probability theory and statistics. Knowledge of deep learning will be very useful, though not strictly necessary as long as the student is willing to learn it. Each ML model will be introduced in class and relevant supplemental online materials will be provided throughout the course.

Course Description:

Natural Language Processing (NLP) is a branch of AI concerned with developing computer systems that can process or generate natural language. Major applications of NLP include machine translation, sentiment analysis, speech recognition, information retrieval / web search engines, question answering, or information extraction. In this course, students will learn how to use modern machine learning (ML) techniques to solve fundamental NLP tasks, such as training vector-based representations of words and their meanings, document classification, syntactic parsing, language modeling, coreference resolution, entity linking, and semantic parsing.

Recommended Supplementary Text:
  Speech and Language Processing (3rd edition draft)
    by Daniel Juraksfy and James E. Martin. 2019
Recommended Supplementary Text:
  Natural Language Processing
    by Jacob Eisenstein. 2019

Grading:
  30%: Homework Assignments
  10%: 1 Class Presentation
  30%: 2 Midterm Exams (*provisionally* on Oct 15 and Nov 26)
  30%: Final Project

Course and Attendance policies:
  Assignments: All homework assignments are due before the class. No late submissions will be accepted without prior approval.
  Attendance: It is in your best interest to attend the lectures. Some of the

material will not be found in the supplementary text or on the slides. Extra credit will be awarded for class activity. Also, be sure to check your OU email for important announcements on a regular basis.

Academic Dishonesty Policy:

`All work must be the student's own`. All external references used in reports must be properly cited. No credit will be given for duplicate or plagiarized work. Additional measures may be imposed by the University Judiciaries, when conditions warrant. Students may appeal academic sanctions through the grade appeal process. The OU Student Code of Conduct Policy is available online at:

`http://www.ohio.edu/communitystandards/academic/students.cfm`

Disability-based Accommodation:

Any student who suspects s/he may need an accommodation based on the impact of a disability should contact the class instructor privately to discuss the students specific needs and provide written documentation from the Office of Student Accessibility Services. If the student is not yet registered as a student with a disability, s/he should contact the Office of Student Accessibility Services.

Mental Health and Wellness:

College can be a stressful time, and many things can prevent you from performing at your best, including strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. If you find yourself dealing with these or other issues that affect your mental health or academic performance, Ohio University offers services that can help. Drop-in counseling is available in Hudson Hall (3rd floor) from 9:45-3:15 Monday-Friday, as well as Counselor-in-Residence hours Sunday-Thursday from 5-10 pm in Living Learning Center, Room 160. Services are free to students with the OHIO Guarantee. `If you need immediate assistance, you may call (740) 593-1616 24 hours per day, 7 days a week`. For additional resources, visit:

`http://www.ohio.edu/student-affairs/counseling`.

Other Policies:

Be sure to notify the professor of any exam conflicts or other extenuating circumstances well in advance. `No missed exams will be made up without prior approval`. Medical excuse forms need to explicitly mention that the student could not have attended the exam at the specified time due to health concerns.