

## CSC 202: Intro to Machine Intelligence

### Lab 9: Twitter

Turn in a Jupyter Notebook that completes the following:

1. Use the Twitter API to retrieve profile information for Eastern's twitter account (EasternCTStateU), and answer the questions below. Note that you will need to specify the correct *user\_fields* to get all of the information being asked for. Valid user fields can be found here: <https://developer.twitter.com/en/docs/twitter-api/data-dictionary/object-model/user>.

- a. Print out a summary of Eastern's account using the following format, where the correct information is extracted from the *user* object. [10 points]

*Name: (name)*

*Username: (username)*

*Description: (description)*

*Location: (user location)*

- b. Print out the following, where 3732 is the number of followers (stored in *followers\_count*) and 114 is the number of friends (stored in *following\_count*). Note that this information can be found in the *public\_metrics* field. [10 points]

*Eastern has 3732 followers and 114 friends*

2. Use the Twitter API to search for English-language tweets containing 'Daylight Saving Time' that are retweets. Note that to search specifically for retweets, you should include the following in your search string: *filter:retweets*. You will also need to use the correct *tweet\_fields* and *expansion* to get the relevant metrics and user information. As in the class example, you must create a *users\_dictionary* so that you can look up the author of a tweet by the *author\_id*.

- a. Output the number of tweets retrieved, by explicitly getting the value for the number of tweets returned. [5 points]
- b. For the first five tweets, output the user name, the full text of the tweet, and the tweet's url (output only this information). [10 points]
- c. For *all* tweets each, output the user name, the number of likes, and the number of retweets. [10 points]
- d. Output the text of the tweet(s) with the most likes. To do this, you can use one loop to find the maximum number of likes. Then use a second loop that outputs the tweet if its number of likes matches the maximum. This approach will correctly output multiple tweets if there is a tie. Your output should have the following format: *The maximum number of likes is 573. The text of these tweets*

*is below: (skip a line and then display the tweets, with a blank line in between them). [15 points]*