Finding datasets / resources

LING575 Analyzing Neural Language Models Shane Steinert-Threlkeld April 19 2021







Other sources of data

- Thanks, Rachel Rudinger, for the presentation on <u>decomp.io</u>!
 - Hopefully some of you will do analysis projects using that data
- Now: just a few pointers on finding data for your projects







Roles for data

- You will need data for your analysis project
- One simple case: data captures linguistic feature X, ask which representations in which models can capture that feature
 - (Can be good to use more than one dataset here if possible)
- More complicated: generate your own data
 - Because you hypothesize that model X will struggle with it ("adversarial")
 - To carefully control various linguistic variables
 - Can borrow / take inspiration from / build upon examples from linguistics papers
 - Examples: Marvin and Linzen 2018, Warstadt et al 2019, McCoy et al 2019





- hypothesis
- Well-designed:
 - Clear annotation guidelines that yield consistent results
 - Targets the intended task
- Relatively large (somewhat less important for analysis projects)
- Precedent in the literature
 - with) existing datasets!
 - Can, e.g., be a new analysis using data from a paper we've already discussed

What makes a good dataset?

• Can depend on the project; try to find/build data that's motivated by your question/

• If your project involves phenomena that are well-studied in NLP, use (and/or compare)







LDC; Treehouse DB

- Treebank)
- Many of those, and lots more, pre-installed on paths
 - For a complete directory, see https://cldb.ling.washington.edu/

• The Linguistics Data Consortium has many excellent datasets (think Penn







SemEval

- International Workshop on Semantic Evaluation
- Each year, a shared task (or tasks)
 - Multiple teams build models for one task
 - Data is well-designed to be consumable by teams
- 2020 (links to older): <u>http://alt.gcri.org/semeval2020/index.php?id=tasks</u>
- Not every task will be appropriate; but you can search for your keywords + "semeval" and see if there's been a task in the past
- NB: there are other shared tasks, not just SemEval, so you can also try keywords + "shared task"







Some general resources

- New-ish: Google Dataset Search
 - https://datasetsearch.research.google.com/
 - Personally some mixed results so far, but could be very useful

- The Big Bad NLP Database
 - https://guantumstat.com/dataset/dataset.html
 - New, has large/standard datasets, but fairly small coverage (low recall)





Special Topics Presentations







Presentations

- Each group will be responsible for leading an ~45 minute discussion on a special topic of their choosing
- For example:
 - A deep dive into one or two papers that are important to your group's project • Survey of a method / model / dataset that you are using that was not covered in
 - the earlier lectures
- Present material, but also lead/guide a discussion, to make these sessions as much seminar-style as possible
 - You don't need to have all the answers about everything that could possibly come up







Logistics

- Sign up here:
 - https://docs.google.com/spreadsheets/d/ <u>1sVjpJFRq99k0vPvJSb4zmqBsik53Odfap5O4ruYjNqQ/edit?usp=sharing</u>
 - For now: pick a time slot. You only need to fill in the first two columns.
 - NB: there are 7 groups; so one week will have only one presentation

One full week before your presentation:

- Fill in topic, and list of reading(s) / resources
- Email me as well
- I will post to the website so that everyone can read in advance









Next time

- Some tips / advice about
 - Managing projects
 - Writing papers
- Useful resources / libraries
- Walkthrough of basic diagnostic classifier example



