Course Wrap-up

Kenneth Lai

Brandeis University

December 7, 2022

Announcements

- ▶ By 11:59pm today
 - ► Final project progress report due
- ► Final project presentations 12/14 6-9pm in Volen 119
- ► For 12/19
 - Final project code and write-up due
 - Personal Learning Goals Part 2 due
- Please complete your course evaluations!

Final Project Progress Report

Please prepare a short document (one per group, in PDF format) containing:

- ► Title
- ► Abstract (very short, about 50 words or so, just describing what your project is about)

Final Project Progress Report

Please prepare a short document (one per group, in PDF format) containing:

- Background and Related Work
 - Describe some (i.e., the most relevant) previous work in your area, and how your project builds upon that work
 - This could look different for different groups, depending on what your project is about; e.g., if your project is extending the model from class/the book to cover some semantic phenomenon, you could focus on that phenomenon
 - ► This is the "rough draft" portion of the progress report, so ideally this can be plugged into your final write-up (that being said, as Prof. Goldberg likes to say, the most important property at this point is existence)

Final Project Progress Report

Please prepare a short document (one per group, in PDF format) containing:

- Methods
 - Describe in some detail (not necessarily "rough draft" level, but hopefully a bit more than in your ideas document) what you will do and how you will do it
 - In particular, for those projects involving data, you should have either found a suitable corpus, or know how to generate one
 - Also state
 - ► How much you have done
 - ► How much you plan to do by 12/14

Final Project Presentations

- ► Groups should aim for around 9 minutes for presentations covering the following themes
 - Describe the problem, and why it is interesting/important
 - How you tried (or will try) to solve the problem
 - If you have results or conclusions, great; otherwise, don't worry about it
- There will be food!
 - Please let me know if you have any allergies or dietary restrictions

Final Project Write-up

- Expected length: 2–4 pages
- Style files posted on LATTE
- Sections you could include
 - Introduction
 - Background and Related Work
 - Methods
 - Including data and evaluation (if applicable)
 - Results
 - Discussion
 - Conclusion
 - You are free to organize your write-up in whatever way is most appropriate, though

Personal Learning Goals Part 2

- Reflect on your personal learning goals from the beginning of the semester
 - Did you meet your personal learning goals?
 - ► How about our (collective) learning goals?
 - Do you have any new goals for the future?

Today's Plan

- ► Ken's reflections on our (collective) learning goals
- Review of mid-course feedback
- Other thoughts about the class

- appreciate the different ways one can represent and compute meaning in natural language,
 - Expression meaning vs. speaker meaning
 - Meaning as truth vs. meaning as use

- implement these computational systems using tools from functional programming and machine learning,
 - Formal semantics with functional programming
 - Lambda calculus and types; propositional and predicate logic for building a model of a fragment of English
 - Functors and applicative functors; modal and temporal logic for extralinguistic context
 - Continuations and monads for linguistic context
 - Distributional semantics with machine learning
 - Count-based vs. prediction-based
 - Static vs. contextualized word embeddings

- read, understand, and communicate effectively about contemporary work in computational semantics, and
 - ► I'm very happy with how the paper presentations turned out, both in terms of the range of topics covered, and the quality of the presentations themselves
 - ▶ In particular, I thought we had a very good balance between papers I mentioned in class, and papers you found on your own

- integrate the above knowledge and skills in the form of a final project.
 - Again, I am very impressed with the ideas you were able to come up with!

Mid-course Feedback

- "I find the course materials (readings, assignments, slides, etc.) useful to my learning."
 - ▶ 3.67 (4 = agree)
 - People generally thought lectures were useful, readings were mixed
 - Thoughts on assignments?
- "The pace of the course is..."
 - ▶ 3.00 (just right)
- "Compared with a typical course, the amount of time you spend on this course is..."
 - ▶ 3.00 (about average)

Mid-course Feedback

- ► People generally liked/would like having time in class to go through examples, play around with Haskell, etc.
 - ► Sounds like you want a lab!

Other Thoughts

- When to start thinking about paper presentations/final projects
- ▶ Balance between formal and distributional semantics
- ► Haskell vs. Python