Guidance on final projects

Each student does a final project, exploring some aspect of computational linguistics that particularly interests them. Although the intention is that students will apply or develop an idea that has been introduced in the course of the semester, the specific choice is up to the student. Explore — use your creativity. Often, the idea for final projects comes from foreign languages, linguistic theories, or mathematical issues in the analysis of human language.

Evaluation and Timeline

These final projects are evaluated in several ways. The last evaluation is on the basis of a ‘writeup’ to be turned in at the end of Study Period. But along the way, there are a variety of intermediate stages:

before Nov 13th interact with Prof. Hale before this date about candidate project ideas. HW8 “final project brainstorm” served to stimulate this interaction.

by Nov 13th turn in a Full Proposal. This document should spell out clearly the scope of your project and your choice of methods. This document is graded according to the same criteria as the writeup: clarity, coherence and promise shown by preliminary results.

Festival of Final Projects Sign up for a time-slot in which to give a short (<15 minute) presentation about your project in class. The project does not need to be fully complete at this point, but your should have something to show.

Dec 11th final deadline for the writeup. Submission will be through the Course Management System.

Scale and feasibility

The ideal final project is at the intersection the student’s real interests and some sub-area of computational linguistics. It needs to fit into the available time remaining in the semester; budget about two weeks of solid effort.

If you propose something too large e.g. high-accuracy machine-translation for arbitrary texts, the instructor will steer you towards a more manageable sub-project — perhaps a pair of controlled sub-languages, with just a few interesting constructions. If you propose something too small — transliterating a program out of a book — the instructor will encourage you to lift your sights. You might delve more deeply into the theory of the program’s operation, or extend it to some new case.

What activities should I be doing?

As we near the end of the semester, read-up on potential topics. Get help from the instructor, read the references that he suggests. Spend some time thinking and developing small prototypes.

What should I say in my presentation?

The presentation at the Festival of Final Projects prompts each student to explain

why why is your topic interesting from the perspective of computational linguistics?

what what linguistic issue are you tackling? what computational idea are you using?

how how are you doing the project: what methods are you applying, and how are they working out so far?

The presentation itself factors into the overall final project grade, but it is an intermediate step — a possible course-correction. What is being graded is the care with which the project has been pursued to date, and the use the presenter makes of the feedback that he or she gets. A presentation that is totally bereft of intermediate results would indicate a lack of seriousness. However, presentation showing that approach X is not working can still receive a high grade if the insight translates into an alternative approach X’ in the writeup.
What goes in the writeup

The writeup is a kind of technical report on the computational treatment of some language phenomenon. It should explain the problem and the approach, and then detail what has been achieved. It needs to be complete, in the sense that it explains the project fully, but also short: not longer than 12 pages. The best way to write it is to ruthlessly edit a longer draft down until it fits inside the page limit. A bad writeup can scuttle a good project, so allocate the time you need to produce a quality report. Take advantage of free help at Cornell’s Writing Walk-In Service.

Although program code can be submitted as an appendix, software ideas should be presented in prose, with diagrams, or via an appropriate mathematical formalization.

This writeup should include some reflection on what you, as the student, learned from the experience. Did everything go as planned? How would you extend this work if given, say 3 more months?

Collaborative projects

Every student who is taking the class for a grade receives an individual grade. So, the easiest projects to grade are solo projects. But on the other hand, a collaborative team project may also be possible. The key requirement is assigning credit, separately, to each teammate. One way to do that is to factor a large project into sub-tasks. If you wish to pursue this, include in your proposal a Grading Plan that details who is doing what. All teammates will be graded on their understanding of why/what/how, and they must each make an identifiable contribution to the presentation at the Festival of Final Projects.