Jenny Rose Finkel

Teaching Statement

One of my primary motivations for pursuing an academic career is the opportunity to teach and mentor students. While I love doing research, I believe that teaching has a much larger impact on the world, due to the sheer number of people affected, both directly and indirectly. As a teacher, I hope to both inspire a love of AI and NLP in my students, and give them the technical skills necessary to be successful. I am a strong proponent of teaching outside the classroom, and a new job in our research group, *educational affairs czar*, was created for me in response to the educational initiatives I have taken during my graduate career at Stanford.

My classroom experience has been as teaching assistant for three classes at Stanford, *CS224S: Speech Recognition and Synthesis* and *CS124N: From Language to Information* with Professor Dan Jurafsky, and *CS224N: Natural Language Processing* with Professor Chris Manning. For all three classes, I held regular office hours, guest lectured, graded assignments, created new assignments, and helped update old assignments. In CS224S, I added "sanity check" inputs and outputs for all of the programming assignments, so that students could check if their code was correct without actually giving them the answers. I had always appreciated such information when taking classes, and it was clear from the student response and performance that they appreciated it as well. CS124N was a new course the quarter that I was the TA, so I played a pivotal role in the creation of new problem sets and programming assignments.

All three of these courses were project-based, and this served to reinforce the pro-project opinion I had formed as a student. Class projects are critical for getting students excited about a subject; their open-endedness gives students an opportunity to find and explore the aspects of a subject which interest them, and can help motivate undergraduate students to get involved with research. Problem sets and programming assignments are also both important components for teaching technical material. Problem sets are necessary to build and test technical skills, and programming assignments give students an opportunity to really 'get their hands dirty' with respect to a topic. As a professor, I would incorporate all three of these types of assignments into my classes. I would enjoy teaching courses on natural language processing, artificial intelligence, machine learning, and probabilistic graphical models.

Early in my graduate career, I found that our lab did not have a reading group, so I formed one, and have been organizing it ever since. Reading group is my favorite weekly meeting, because it provides such a wide range of benefits: better understanding of papers read, exposure to papers one may not have read on one's own, improved communication skills from leading discussions, and most importantly, a regular opportunity to discuss ideas, outside of us presenting our own work. I have found the conversations which stemmed from reading group to be amongst the most valuable I have had at Stanford, and even published a paper (*Enforcing Transitivity in Coreference Resolution*, ACL 2008) as a direct result of a reading group discussion. One year I also organized a focused reading group for a subset of the students who were interested in learning about variational inference, a topic on which Stanford did not have any classes.

While at Stanford I also become an advisor for the Stanford-based chapter of NACLO, a computational linguistics olympiad for high school students. As an advisor, I worked with undergraduate students to organize practice sessions for the high school students, and proctored the tests. I have also been invloved in discussions about the undergraduate computational linguistics curriculum, giving my opinion on current courses and potential new courses.

As I have progressed through the PhD, I have found myself serving as an unofficial mentor for several younger PhD and Masters students, offering guidance on projects, feedback on paper drafts, and general advice about graduate school. I look forward to becoming a professor, teaching classes, and having graduate students of my own.