Teaching Statement

I believe that faculty members have a major role in educating the next generation of researchers and industry professionals. This manifests in two complementary aspects: *teaching courses* reaches a large audience, especially with the introduction of online learning, while *mentoring students* enables a close and more personal guidance. In both, I strive to instill in students good practices and a passion for learning.

In addition to the benefits for students, I think that the teacher also stands to gain from the academic experience. Building a good class requires the organization of complicated topics in a structured manner which demands a thorough understanding of the material. Likewise, mentoring smart, inquisitive students further challenges the mentor to refine their understanding and rethink their preconceived opinions.

1 Teaching

I was first introduced to natural language processing (NLP) in an undergraduate course at the Ben Gurion University. During the course, I learned about different topics at the intersection of computer science and linguistics, which have intrigued and captivated me since. Despite the vast progress in NLP in the decade since I took the course, I find it is still relevant today as it deals with the core ideas in NLP and its longstanding challenges. I would like to follow this approach in my teaching, and present every subject from first principles, giving my students firm foundations on which they can base their future knowledge. This *fills up* the student's tank for long distances and prepares them for a career of learning in a fast-changing field.

Looking forward, I am excited to build and present courses for core computer science subjects (such as data structures, computational complexity, or principles of programming languages), as well as elective courses in NLP and machine learning. In addition, I believe that Massive Open Online Courses (MOOCs) are an excellent platform for breaking monetary and geographical boundaries, and thus democratize the learning process. MOOCs also demand the compilation of a tight course outline which is coherent for a large cohort of students, far beyond the scale of the traditional classroom.

Experience. Starting from the second year of my bachelor's degree, I was regularly involved in teaching both graduates and undergraduates at several academic positions, including as an academic grader and as a guest lecturer. I designed assignments for courses at Ben Gurion and Bar-Ilan Universities, working closely with the course instructor to create challenging tasks which test understanding of the course syllabus. Frontal grading sessions served as additional opportunities for instruction, and I enjoyed following and correcting the student's line of thought, rather than measuring them only by rigid criteria of success or failure.

During my postdoctoral studies at the University of Washington, I regularly co-organized weekly reading seminar courses, where I built a syllabus of papers around an NLP or machine learning topic of my choosing, such as semantic representations or interpretability. The students enlisted in the course (about 20 students) were each assigned a paper to present, and learned how to read it critically and compare it with the other relevant work we presented during the semester.

2 Mentoring

Throughout my academic career, I worked with inspiring mentors who have guided me professionally, helped me evolve personally, and allowed me to find my specific interests within the wide field of NLP. Following in their footsteps, I plan to build a research group whose members have overlapping yet different areas of interest. In my opinion, such a diverse setting is key for a productive environment where students teach and learn from each other, and where novel and innovative cross-disciplinary ideas can grow. Furthermore, I would like to provide students with the opportunity to mentor younger students in the group. In this process, all sides benefit from being exposed to a diversity of opinions.

Experience. I mentored and worked closely with students from a wide range of expertise. I volunteered to mentor a high-school student towards his Bagrut project in Computer science, where he developed a question-answering system over syntactic trees. I worked with an undergraduate student towards her final project which she plans to submit to a top academic conference. Finally, I worked with several doctoral students in their first publications where they honed their research skills, including two research interns in focused, short-term projects.

I found all of these experiences enlightening and fruitful, both personally as well as academically and pedagogically. I aim to find a common ground between my areas of expertise and those of the students. I believe that such collaborative work gives students the ambition to follow their own interests while I can provide advice and situate the student's work within the broader context of the field of research.