Teaching Statement

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October 25, 2015

I enjoy learning, especially in the academic setting. This is one of the main motivations for my academic ambitions. I have spent the better part of the last decade being part of four different academic institutions. From my experience, I have come to realize that the primary purpose of higher education is to provide a platform for students to strive for excellence and foster independence in pursuit of their own goals. I view my teaching responsibilities in this broad context. I draw insights and inspirations from some of the excellent teachers and mentors I have had the good fortune to learn from.

I teach Introduction to Natural language processing, and Advanced Topics in Computational Linguistics. The courses are designed to cover state-of-the-art advances in Natural language processing. I am interested in teaching graduate and undergraduate courses in natural language processing, information retrieval and artificial intelligence, which are areas that are my core areas of expertise. Strong background in these topics is critical to succeeding in the big data and information economy of today. There are two broad veins of expertise required in these areas: i) Fundamental Computational aspects – Data structures, algorithms, and handling large scale data. ii) Advanced Theory/Research aspects – Models, theory, evaluation and experimentation. I am interested in designing courses that straddle both aspects but with a heavier emphasis on computational aspects for undergraduate level and more advanced research aspects for the graduate level.

In the long term, I will develop courses for engaging a broader community of students. My goal here is two-fold: 1) Provide access to computational tools that non-computer science majors can use, and 2) attract women and minorities to computer science. I will teach a project-driven course that gets students excited about solving a real world problem using computers. Articulating the problem, finding the right data and tools provide a walk-through of the main steps involved in solving problems computationally. This provides an attractive non-technical format for introducing some of the core aspects of computer science.

I was fortunate to be taught by excellent passionate teachers whom I wish to emulate in my own teaching. One of the courses that I enjoyed most was Theory of Computation taught by Prof. Neil Immerman. As with many great teachers Neil's enthusiasm for the course shone through in every lecture. It was infectious. The course was structured around lectures and assignments. Lectures covered the most important aspects in detail, while assignments are where the real learning happened. Thinking back about his course, I realize what he did not teach in class was as important as what he did teach in class. He used the assignments to get students to learn the missing pieces. I have also noticed that successful teachers are always ready to re-think and adapt their course material with feedback from students. I have attempted to follow in his footsteps to convey as much enthusiasm and excite students to learn.

I have worked with mentors who are leading researchers in different fields – James Allan in Information retrieval, Arun Venkataramani in Systems, and Oren Etzioni in Information extraction. I have

received valuable training from these wonderful researchers. The common theme in their mentorship is the strong emphasis on excellence and independence, values I seek to carry forward myself.

As a mentor I focus on training students to conduct independent research. I firmly believe in early exposure to doing quality research. While early success inspires confidence, learning to handle failures in research is critical to long term success as a researcher. I will create a supportive environment that aids students to do quality research but also learn how to conduct research. More importantly, I will learn and adapt quickly in my own efforts to be an excellent teacher and mentor.

I strive for openness and availability. I do my best to remain open to all students who have the interest, dedication, and drive to learn about topics in my area of expertise. I am advising many Masters students on their final projects, and also advise students from other departments when their needs intersect with my research interests.