

# Teaching Statement

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## Motive and Experience

The quality of education (or lack thereof) that an individual receives will forever mark his or her life. Among the satisfactions that one can experience, the joy of helping others overcome their difficulties and achieve their goals has no match. I was fortunate to have excellent teachers throughout my education. Their influences first inspired me to take a job as a teacher when I graduated from high school and started my undergraduate studies. I was hired to teach an extracurricular course in physics to high school students for a year, at the end of which, I was selected by the students as the best teacher and received an award. This first teaching experience was so fulfilling that I continued the trend by working as a teaching assistant for the algorithms and data structures course in my undergraduate school for two semesters when I was a senior. Being a teaching assistant at this stage involved few lectures but a lot of interaction with students in problem solving sessions which distinguished this experience from the previous one. I held a teaching assistantship for the graduate level program verification course for one semester in graduate school, during which my responsibilities included giving lectures, grading, and holding problem solving sessions.

## Teaching Philosophy

I regard teaching in the field of computer science at university level as a particularly enriching undertaking for several reasons. First, computer science is in its infancy as a science and the boundaries of it are rapidly pushed forward. This demands constant revisions in the curricula which may not necessarily be the case in other subjects. Second, the students at this level have reached a level of maturity to be skeptical and challenge the instructor which creates a better environment for teaching. Third, there are several other forms of teaching besides lecturing relevant to the university environment such as tutoring through individual study, mentoring through thesis advising which are all challenging and rewarding in their own specific way.

Students take a variety of courses during their studies in the university and therefore, I think it is very important to first and foremost take the time to explain to them why the particular subject of the course is important, relevant to their future careers, and interesting. Once this is established, the next step is to teach the basic material in the simplest and most intuitive way with the intention of not leaving anyone in the class behind. This is the point that using the most innovative teaching methods and constantly relying on the feedback from the class plays the most important role. I believe the purpose of assignments is to complement the process of learning, not to evaluate the students.

## Future Plans

Given the chance, I would be particularly interested in teaching courses in *Software Engineering*, *Programming Languages*, *Formal Methods*, *Concurrency Theory*, and *Theory of Computation*. I would be particularly interested in teaching a special topics graduate course on my own research materials. I would also like to hold graduate seminars on latest research in software reliability and verification to introduce the graduate students to the latest developments in my field of research. I am looking forward to the opportunity to teach and mentor students at a leading university.