Michael A. Schuh *Teaching Statement*

Overview

A large component of academia is teaching and interacting with students, and this is one of the main reasons I am pursuing an academic appointment. Through teaching, I will be able to help shape the minds of the next generation of thinkers and doers and as a result the general perceptions of our entire community and society. Teaching computer science, from the fundamental introductory courses to the advanced graduate courses in my own areas of research, will also aid in my own ambitions of life-long learning through the pursuit of new knowledge and the mastery of old.

Teaching Related Activities

I became involved in teaching early on in my undergraduate computer science studies, having often been a course grader or lab assistant. As president of the computer science club in my senior year, I organized a conference at our university for the general public on all things technology-related, including several guest speakers from local industry. I was originally motivated to pursue an academic career through the satisfaction of these activities. I believe an important role related to academia and teaching students is connecting to the community they are ultimately going to serve.

During my first years of graduate school I was a Teaching Assistant (TA) for several courses. As a TA for Compilers (CSCI 410) and Databases (CSCI 440), I guided (and graded) multiple groups through weekly labs and semester-long projects. Working with these small groups felt similar to small research clusters, and I greatly enjoyed communicating insights and ideas across diverse groups and problems. In addition, twice I was the TA for Social and Ethical Issues in Computing (CSCI 215), which I have always considered to be an important and interesting topic. Much of my class time was spent listening to (and grading) short presentations by students on various topics (from computing pioneers to online privacy) and overseeing classroom discussions. Often times these conversations continued after class, which was an opportunity I used to interest students in advanced studies and graduate research possibilities.

As An Instructor

In the Fall of 2012, I was chosen to teach an upper-level course (Database Systems, CSCI 440) as an Adjunct Instructor. Each week I presented three 50 minute lectures, which consisted of speaking with the aid of bullet-point slides and whiteboard drawings. A healthy mixture of educational tools can keep lectures interesting and effective. Furthermore, interested students are more inclined to ask questions, and I think some of the best learning opportunities come from these spontaneous and personal exchanges.

In addition to lectures, I distributed (and graded) homework assignments and quizzes throughout the semester, and had three in-class tests. I also maintained an up-to-date course website with slides and materials available well-before each lecture. The optional end-of-class survey (available upon request) was completed by 30 out of 40 students, giving me an average rating of 1.61 out of 5 (1 being the best), which as told by my department chair, far exceeded the evaluations of other first-time instructors. This was the first course I taught completely on my own, and I found the experience to be tremendously satisfying. I learned it takes individualized effort to reach and engage students of all ages, backgrounds, and learning types.

Conclusions

Teaching is something that someone *wants* to do. Much like coaching an athlete, there can be great reward and self-satisfaction in seeing engaged students learn and apply the material you spend time teaching them. I look forward to this sentiment on the even grander scale of a mentoring advisor to students in my research laboratory – a unique privilege only available in academia, where I plan to build a life-long career.