

## TEACHING STATEMENT

### Teaching Philosophy

As a computer science teacher, I believe that students should develop a strong theoretical foundation, see the value of what is being taught, and learn to embrace opportunities for working in a constructive, interactive and collaborative environment.

I believe that an important skill that students should develop is intuition for problems, which is gained through a solid understanding of theoretical computer science. I endeavor for students to be able to identify the character of problems for which they are developing an algorithm. Further, it is important for students to be able to estimate the difficulty of problems that they are attempting to solve, and this is something that is typically only gained through experience.

When I teach, I like to give context to the theory by tying in an application area where the topic is used. Not only is this an opportunity to keep lectures fresh and relevant for current research, but it makes the subject more interesting for students in those other areas. I also like to point students to webpages or blogs where they can see more material related to the discussion, because this can reinforce the value of the topic. If some of my own work is related to the present topic, a brief discussion can help emphasize the importance of the material and to stimulate interest among the students.

I enjoy using activities to break up the routine of lectures and to draw the attention of students to the lecture material. My experience has been that students are often grateful for such activities and will embrace them with earnest. Furthermore, I embrace technologies which facilitate discussion, interaction, and collaboration, whether they be traditional means such as message boards or more recent tools including online chat rooms or clickers in the classroom.

### Teaching Experience

I was an instructor for CS 135 (Designing Functional Programs), a first year computer science course at the University of Waterloo. There were roughly 800 students divided into eight sections of the course; my section contained 99 students. I was responsible for teaching two 1.5 hour lectures per week, and for creating one assignment and half of an exam. We made use of clickers during lectures, which proved to be an excellent teaching tool that I hope to use again in the future. I have also held 13 instructional apprentice and teaching assistant positions across three universities; details are given in my c.v..

### Professional Development

I participated in the Certificate for University Teaching (CUT) program at the University of Waterloo. The program included a series of seminars which have proven to be valuable resources, as well as teaching observations followed by feedback sessions, which were useful for honing my teaching style. I have also participated in the Student Leadership Program (SLP) at Waterloo, which develops many skills which are useful when teaching. In particular, workshops dedicated to presentation skills, managing discussion, interpersonal skills, and conflict management have helped me develop my teaching style.

### Evaluation of Teaching

I am very proud of the evaluations that I have received. For example, when asked to evaluate my overall effectiveness as a teacher, 92% of my CS 135 students rated my performance as excellent or good. Some of my favourite student comments include: "The instructor made this class my favourite this term."; "I want to take your other courses. Thank you for being a great instructor."; and "Very good grasp of course material, great enhancements by references to algorithms and complexity. Good connections of material to real world problems or current academic problems."

### Future Goals

My aspiration is to become a professor at a quality research-oriented university. While I thoroughly enjoy research, a great aspect of being a professor is that teaching is an important part of the job. I believe in adopting new techniques and technologies in the classroom which enhance the teaching environment, and I am excited to see where the evolution of university teaching takes us in the future.