Teaching Statement
Roger Mailler

Being a professor comes with a great deal of responsibility. Professors are fundamental in developing not only new techniques and technologies to address society’s current and future needs through their research, but also for educating today’s students to become tomorrow’s workforce. Fulfilling the role of educator begins with understanding that the needs and desires of the students within our classes are as different from one another as their names. Many of them will join industry upon graduation. For these students, learning a variety of current, marketable skills while having a strong foundation in designing and implementing systems within a team setting is of paramount importance to their future success. For students that choose to continue within academia, the development of specific market-based skills falls behind the need to learn fundamental concepts and techniques.

I believe that computer science courses need to be designed and taught to accommodate the needs of all students. In my opinion, theory and formal method should be included as an integral part of every course and every course should be taught using current languages, systems, and software. Textbooks, class presentation, homework assignments, projects, and exams need to complement one another. Textbooks and classroom instruction need to provide a strong foundation that is then built upon and reinforced using homework assignments. Projects should be challenging, incorporate a variety of current technologies, and represent situations that might be encountered in practice. Exams should be written that create a sense of relevance to the real-world by testing not only the understanding of basic principles, but their wider, general applicability.

As an undergraduate and graduate student, I have had the pleasure of TA’ing two computer science courses: Introduction to Computer Science and Multi-Agent Systems. As a TA, my duties included preparing and teaching lectures, designing and grading homework assignments, holding office hours, and assisting in creating and grading exams. I believe I have the skills and confidence I need to teach almost any undergraduate computer science course and a wide variety of graduate courses. Because of my background and research interests, I am particularly interested in teaching any of the following areas: Introduction to Programming, Algorithms and Data Structures, Artificial Intelligence, Databases, Multi-Agent Systems, Machine Learning, Constraint Programming, and Distributed Systems.

A professor’s role in educating students extends far beyond the classroom. Professors also advise both undergraduate and graduate students. Advisors play a critical role in a student’s overall learning experience, by not only providing guidance, but also acting as a role-model, mentor, and advocate.

During my time as a student, I often found myself acting as an advisor. As a TA, I was asked to give advice on topics ranging from career choices to babysitting services. As a
senior graduate student, I often found myself providing assistance to newer students on research, publishing, and general coping skills.

As a post doc at Cornell, one of my primary responsibilities was to mentor researchers at the Air Force Research Lab in Rome, NY. The goal of this relationship was to improve both the quantity and quality of the in-house research being done at the lab. To facilitate this goal, I held bi-weekly meetings where we discuss current research papers. These discussions are very interactive, often insightful, and sometimes quite heated. I also advised and collaborated on a number of new, exciting research projects that covered a broad spectrum of current topic areas. Overall, I found the experience very enriching.

In summary, the wide range of experience that I’ve obtained throughout my time in the Air Force, as a student, as a post doctoral associate, and as a scientist at SRI make me believe that I have the right qualities to be an excellent teacher and advisor.