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Teaching Statement

My teaching expertise flows from a variety of experiences: as a general building contractor training my own employees, as a parent, as a presenter at industrial seminars, as a presenter at academic seminars and conferences, as a supervisor of undergraduate research assistants, and as a visiting assistant professor at the College of Charleston since August 2006. The combination of my expertise in industry and my academic training in computer science and historic preservation uniquely prepared me for academic teaching. Now, with almost 5 years experience teaching undergraduate and graduate students, I have discovered that I love teaching and learning to teach.

As a teacher of computing, I challenge each student to discover why computing is exciting and empowering for him or her. I encourage students to question, to learn, and to perform at their individual best. In turn, I listen, cajole, cheer, and learn. Hands-on learning is highly regarded in computing education and I encourage students to expand the scope of hands-on projects to the limits of their imaginations to help them discover how computing can enrich their interests. For example, I promote software engineering projects that explore aspects of computing in other domains. Students thus motivated will gain computing literacy and improved communication skills.

As a teacher, I address the tension in American computer science education between the emerging ubiquitous nature of computing and the current shortage of committed students. One cause of this tension, in my opinion, is the insular nature of how we as computer scientists often view our field. How, for instance, can we claim to develop truly ubiquitous computing solutions with primarily male students and researchers? I encourage students to understand the historical and social contexts of computing as it relates to other human pursuits. I also encourage students to explore the aesthetic and ethical aspects of the design and implementation of software. I employ five students as research assistants and work with each to enrich their appreciation of computing as a profession.

The basic body of knowledge formulated by the Association for Computing Machinery (ACM) informs the dry details of our computing curriculum; however, as a teacher, one of my goals is to guide students to acquire the skills of learning and a love of learning by creatively illuminating the curriculum. For example, my experience with both commercial and academic software development enables me to offer a counterbalance to purely theoretical approaches. I also encourage the exploration and critique of current academic and industrial research. I believe that some portion of every computer science course should focus on communication skills: writings, presentations, demonstrations, and explanations. I know from experience that the creation of these artifacts leads inevitably to a deeper understanding of the communicated content.

One of the more important contributions I make to students and to my community is through my role as a mentor and advisor. Through individual guidance, I help students to discover their potential and to find inspiration in their studies. As an advisor, I directly affect students' education and career decisions. Furthermore, I help The College of Charleston to attract and retain computer science majors through my contributions to curriculum development, the ACM student chapter and departmental outreach programs.