

TEACHING STATEMENT

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I see an educator's mission comprising at least three roles: an *instructor* who radiates enthusiasm; a *scholar* who fosters an environment of discovery; and a *mentor* who helps others to reach their potential. This tri-fold view of education has been shaped and refined through diverse experiences, both formal and informal, and in settings ranging from academic to personal .

INSTRUCTION

Various experiences have molded both my motives and approach to teaching. I have had many exemplary instructors over the course of my education who, through their dynamic teaching, instilled in me excitement for their respective subjects. During the first two years of my graduate studies at the University of Maryland, I led discussion and lab sections for freshmen computer science majors. This experience provided me the chance to teach programming fundamentals with enthusiasm and clarity. At Maryland, I also served for two terms on the Computer Science Department's Education Committee, comprising the faculty and four voting students elected by their peers. Being involved in decisions such as restructuring curriculum and course requirements afforded me a broader perspective of high-level educational goals and objectives. These experiences have kindled in me the aspiration to teach both the foundational principles of computer science and also more advanced and specialized topics. Another exciting opportunity for teachers today is the growing trend toward online courses. These courses, particularly MOOCs (Massive Open Online Courses), present an exciting channel through which instructors can influence and perhaps even have a socioeconomic impact on vast numbers of those who would otherwise be out of reach.

SCHOLARSHIP

In my eyes, one of the greatest ways that an educator can inspire students is to give them open-ended opportunities to explore and to discover. When I reflect upon my own education, I recall few of the thousands of worksheets, essays and problem sets that I completed. What I remember clearly are my projects, where instead of a right or wrong answer there was a chance to explore and follow my curiosity. These open-ended ventures built and challenged my technical skills. As I continue to undertake such projects in my ongoing research and collaborations, I still feel the rich joy found in discovery. I will seek to cultivate this feeling in my students with both focused projects that develop their technical abilities and student-proposed research projects. As students demonstrate both interest and initiative in research, I will strive to provide them opportunity and direction to carry that curiosity forward. Of particular interest are projects which have the potential to positively influence or impact society.

MENTORING

Where formal teaching is largely an exchange of information enabling a student to do or to perform, I believe that mentoring is about sharing experience and preparing someone to make decisions and achieve their potential. I have been very fortunate to have had mentors who coached and encouraged me, fortifying my ability to make good career decisions and become an effective scientist. I have relished opportunities to do likewise and be an effective mentor. As I matured during graduate school, I always enjoyed sitting at a whiteboard and sharing technical concepts with a junior student, but also delighted in recounting helpful experiences that I (or others) had previously. While I eagerly seek such opportunities in my current research collaborations, one ongoing relationship outside of research has shaped a significant part of my perspective on mentoring.

Serving as a youth leader at church, I spent time with several young men, teaching on Sunday and doing sports and other activities with them during the week. I got to know one of them particularly well. He had been raised by a single mother, a refugee, who worked hard just to maintain a minimum wage job. As with many his age and in his circumstances, he dreamed of being a pro athlete, a basketball star in his case. My wife and I got to know him over a couple of years time and, as it came time to think about his future after high school, we were able to expand his perspective beyond what he had experienced in his own upbringing. We helped him to select potential schools, complete college applications and a personal statement, and to apply for financial aid. Today, he has just his final year of coursework before graduating as a business major. As I talk and write to him and see how much he continues to grow, it provides me with great satisfaction. We know that we didn't accomplish all this for him. Rather, as we shared our experience and perspective with him, we led him to a new road, gave him tools to achieve, and prepared him to make decisions that will enable him to become something great. This has greatly shaped my vision of the type of mentor that I want to be, both inside and outside of the classroom.

CONCLUSION

To conclude, I return to my belief that being an effective educator comprises the roles of instruction, scholarship and mentoring. In my life's work as a teacher, I will endeavor to teach by radiating excitement, intuition and perspective. I will strive both to exemplify and encourage lifelong scholarship. I will seek to share helpful experiences and perspective, helping prepare those I mentor to make decisions that will help them become the best at whatever they choose to do.