Statement of Teaching Interests

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I love learning, and believe it is a responsibility, a privilege, and a joy to teach in return. My love for learning and teaching is broader than any one field, so much of this statement is about teaching in general. So far, I have taught classes in programming languages and systems, and would like in future to teach undergraduates or graduate students in languages, operating systems, networking, and/or elementary courses. My teaching is driven by flexibility, clarity, and the desire to reach all students.

At MIT, I have taught informally, as a lab assistant, and twice as a teaching assistant: for an undergraduate course and a graduate course. My most extensive teaching experience was the graduate course on programming languages. I taught recitation (weekly sections with 25 to 30 students) and lecture once or twice when the professor was out of town; answered students' questions; led quiz reviews; and developed course material, including quizzes and code. I was honored with two awards for the teaching assistantships, one for contributions to students' writing skills and one for general excellence.

My goal in teaching is to reach every student. (Many students reported on evaluations that they "truly believed that [I] cared about their performance in the course.") To reach everyone, a teacher must be flexible and provide different ways to learn the material; then students can choose the ones that work for them. I concentrate my efforts on clear, intuitive explanations, but let students help guide the pace and path of my lectures, and use other techniques whenever they help—from design problems to metaphors to games.

Teaching can also be inspirational, exciting students about computer science and computer systems. Inspiration, I believe, comes mostly from working on well-chosen, difficult, and rewarding problems. Lectures are important for providing intuition, but working on problems is what makes intuition stick; and only solving problems provides the adrenaline rush of inspiration. I put a lot of effort and creativity into creating problems and projects that are meant to inspire.

Of course, the most rewarding problems are research problems, and research and teaching are deeply linked, sharing a concern for the clearest explanation and the simplest solution. Advising graduate students (and undergraduate researchers) requires flexibility and excitement, even more than teaching a lecture. But then the rewards are greater—you end up with a collaborator and a peer.