Teaching Statement

Stefan Saroiu
tzoompy@cs.washington.edu

Overview

I deeply enjoy the rewards of teaching and mentoring students. My background makes me particularly qualified to teach undergraduate courses in operating systems, networks, distributed and peer-to-peer systems, databases, and freshman/sophomore programming, algorithms and data structures. At the graduate level, I am interested in teaching distributed systems, advanced operating systems, and networking. I also would like to develop courses at both the undergraduate and graduate levels that discuss modern Internet systems, including topics of content delivery systems, peer-to-peer systems, scalable system design, network protocols, and security and privacy.

Undergraduate Teaching

I am a strong believer in a passionate style of teaching at the undergraduate level. My most influential teachers were the ones who were passionate about the material. Their dedication stimulated my interest in the subject and eventually led me to become drawn to what I learned. I also believe that is is critical for students to have assignments and projects with high relevance, attacking problems that they can relate to. In experimental systems, it is imperative to learn and develop intuitive understanding from the right set of hands-on experiences, rather than from abstract concepts and models.

I believe in providing research opportunities to motivated, advanced undergraduates. In my experience, welcoming an undergraduate into a research group has been greatly beneficial to both the student and the group, as an enthusiastic and well-guided undergraduate can often produce excellent results and greatly contribute to the momentum of the research project. Graduate students also benefit from the experience of mentoring an undergraduate researcher.

Graduate Teaching

At the graduate level, I prefer a highly interactive method of learning. A format that has worked well at the University of Washington for many advanced courses and seminars is to have the students read two papers per class, and to use the lecture time to present a synthesis of key ideas in those papers, structured around a group discussion. I had numerous occasions to lead many such discussions. For one term, I took complete responsibility over the networking seminar.

One of the most important experiences for me as a graduate student has been the weekly systems seminar. Part of the culture of the Washington systems research group is to attend this seminar, where great argumentative discussion, insight, criticism, and exchange of ideas has continuously shaped and enhanced my research. The high standard that all work and ideas were compared against has always been extremely motivating to me. I would like to continue this “tradition” and to ensure that my future research environment benefits from having a highly interactive forum of discussion.

Projects play a crucial role in graduate coursework, and again drawing from my experience at Washington, I believe that systems related graduate courses should include a major project component with students working together in small groups. Students should attempt to produce publishable work in their courses (even if many end up not doing so), and whenever possible, they should attempt to align their individual research with their course project.

Finally, I strongly believe in using visiting speakers to give guest lectures about their work in appropriate courses. Bringing a diverse group of guest lecturers often leads to new insight and discussion into the research group and projects. Students also need to be exposed to different points of view and different styles of presenting and evaluating research ideas. Bringing guest lectures ensures a successful course and fosters productive relationships between the students and the guest.