

# Teaching Statement

Wyatt Lloyd

Teaching is an important and exciting part of being a faculty member. I look forward to being involved in teaching at all levels, from sparking student interest in Computer Science in introductory courses to advising students pursuing their own research. I am qualified to teach introductory CS classes and particularly qualified to teach classes on systems and networking at the undergraduate level, the advanced/graduate level, and in seminars on more focused topics like distributed storage systems or datacenter networking.

I first gained teaching experience as a TA for Princeton's introductory course (COS 126). My favorite part of the course was teaching a twice-weekly precept to my section of about a dozen students. I focused on being enthusiastic about the material and keeping the class highly interactive. I believe the more you involve students and show them the interesting facets of a subject, the more they will be motivated to learn.

I also served as a TA for Princeton's networking course at the advanced undergraduate level (COS 461). The course had a strong focus on projects where the students built what we were learning about in class, e.g., a lightweight TCP implementation. This focus on building helped students understand the material more deeply, actively engaged them in the subject, and provided them with practical system building experience. The core parts of course were supplemented with discussions of recent research advancements, showing students our field is still evolving and that they can have an impact. This inspired several students to do research with our group, some of whom ultimately went to graduate school in systems and networking. The effectiveness of the class greatly impressed me, and I will incorporate a focus on building and discussion of research results into any advanced systems or networking course I teach.

Graduate courses offer an in-depth look at a topic and are an excellent vehicle for initiating research. I have found the format of lectures on a topic, followed by reading related papers, and then finally working on a research project to be a successful strategy. Lectures ensure a basic level of knowledge so that papers are accessible and framed by current and historical practices. Paper readings and discussions allow much more depth in exploring a topic as well as help students learn how to best focus their work and its exposition for maximum impact. This fall I had the privilege to guest teach the graduate level advanced networking class (COS 561) where I delivered a lecture with my enthusiastic and interactive style, followed by a discussion of two papers the students had read. This experience, combined with my earlier experience as a TA, confirmed that I enjoy and excel at teaching all levels of courses.

Research projects are an essential part of graduate courses because they give students the opportunity to explore a topic in greater depth, enabling them to make a potentially publishable contribution of their own. This is, in fact, how I published my first paper. An aspect of student projects that I will emphasize is building a prototype and experimentally verifying its design. I consider this an essential component of research in systems as it grounds their work in reality, gives them system-building experience, helps them focus on what is novel about their design, and can lead them to new areas of research.

I have advised one undergraduate on a semester-long research project and three other undergraduates on six-week summer projects. In each case, the experience was rewarding and I look forward to longer-term advisement of graduate students. I view advisement as a tremendous opportunity, and responsibility, to guide students down worthwhile paths without stifling their individuality or creativity. I am particularly excited to see how long-term collaboration will merge my ideas with those of my students into new research directions.