Teaching Statement

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Teaching Philosophy My personal philosophy is that each student needs to be both encouraged and challenged to perform better than they thought otherwise possible—this especially applies for what teachers and advisors often consider the "best" students. For instance, I learned to train and compete at a higher level than I previously thought possible when I was playing football at the University of Washington. This mentality was taught by the coaches. Similarly, until my sophomore year as an undergraduate, I never considered a career in computer science, much less as a professor. However, a mentor encouraged me to apply to the computer engineering department and my first computer science professor challenged me to pursue the discipline further; this lead me to ultimately obtain my PhD from the University of California, Berkeley.

Currently, I am completing my second year of a post-doctoral position at Cornell University. Since holding this position, it has solidified my desire to pursue a career in academia. Research, teaching and interacting with students and faculty are the main reasons that drive me to the academic world. I also like to serve as a role model for students especially underrepresented-minority students in computing and engineering.

Teaching Approach and Experience My most recent teaching experience was as the instructor for an advanced upper division operating systems course, CS 414/415 at Cornell University. The course typically includes many juniors, seniors, masters, and some doctoral students. In addition to planning and giving lectures and exams, I organized and delegated roles to teaching assistants, such as homework and lab assignments.

Advanced operating systems is typically a fairly challenging course, students spend a significant amount of time learning about designing and implementing various components of an operating system. However, while teaching the course, I personally learned a great deal about "learning". For instance, understanding how students learn is one of the significant aspects of teaching. Being in the computer science field, I had a very diverse group of students with varying backgrounds, experiences and proficiency in programming and the English language. I had to make the material I was teaching accessible enough for the non-expert, but intellectually interesting and challenging for all students. It has been said that, "If a student cannot learn the way we teach, maybe we should teach the way they learn." It is exciting and rewarding to see many of the graduating seniors I had in my class are currently applying for graduate schools in systems.

In addition to teaching, I have advised several undergraduate as well as entering graduate students on research projects. A majority of these students had no prior research experience. One method that has worked well for me was to allow the students to choose a semester project where the specifications may be fairly clearly specified, but the design space was open ended. The students often completed a significant project that seemed unimaginable only months earlier. For instance, Jeremy Stribling, Kelvin So, and Jason Lee worked with me as juniors and seniors on various research projects relating to Antiquity and OceanStore. These students eventually went to top tier graduate programs such as MIT, Cornell, and UCLA, respectively.

In general, I have high expectations for my students' performance and in return I like my students to have high expectations of themselves as well. This combined with encouragement and other necessary tools are often sufficient for a student to take on a challenge and succeed. My objective as a teacher and advisor is to provide those tools, pose the challenges, and assist my students in developing their critical thinking skills.

Teaching Preferences My background and research qualify me to teach a variety of graduate and undergraduate courses, including operating systems, distributed systems, storage systems, and networking.