When I look back on my undergraduate years, I see that the activities that were most satisfying to me were those that had value to *other people*; mentoring, teaching, and building *useful* systems stick out my in mind far more than any of my purely academic achievements. I strive to continue pursuing these activities, where I am able to learn from and benefit those around me.

As an English tutor at a high school in South Seattle I learned that people differ widely in their interests and motivations. Many of the students were struggling in school, and were not interested in the material. After several disappointing attempts to captivate their attention I discovered that by explaining things in terms relevant to their own lives ("Do you like when your parents boss you around?"), I was finally able to spark interest in the material and get my original point across. Seeing the students think more deeply about the material was satisfying to me as a tutor, and spurred a desire to improve my ability to explain concepts in a clear way.

I had the opportunity to learn more about teaching as a writing tutor in the philosophy department. In my role as tutor, students would come to me struggling to find objections to philosophical arguments. Leading them through the arguments taught me that stepping back and taking time to distill ideas into their simplest form before moving on can be highly productive; I found that by encouraging them to go back and re-write terse summaries of the premises and conclusions, they were then able to see flaws in the arguments much more easily. I also realized that leading them through this process caused *me* to understand the arguments much more deeply than I ever did before. This bi-directional aspect of teaching is what excites me most about the opportunity to serve as a teaching assistant later in my graduate studies.

In my own education, I have found that the most compelling subjects are those that yield *tangible* results on other people's lives. Coming from a philosophy background, it was eye-opening for me to see the visible results of the programs I wrote for a computer science course I took during my Sophomore year. I came to believe that computer science would be an excellent way for me to channel my creativity in a way that could positively affect other people. This conviction was solidified when I began participating in the Reverse Traceroute project. Reverse Traceroute was my first encounter with academic work that extended outside of the classroom. I found this "real-world" applicability extremely compelling, and subsequently decided to devote much of my free time for the remainder of my undergraduate career to research.

When I began sitting in on graduate-level seminars during my senior year, I quickly realized that I needed practice articulating my research to others. I subsequently started a weekly group meeting with fellow undergraduate researchers, where we would take turns explaining our research to each other, brainstorming solutions to problems we encountered, and sharing our experiences working in different research areas with different advisers. This group still exists after I left for UC Berkeley, and I am proud to hear that it will be offered as a for-credit seminar next quarter.

My path to graduate school has been strongly influenced by the guidance of many mentors,

advisers, and role models. Now that I have gained significant experience, I am pleased to return the guidance that was given to me by mentoring younger students. During my time with Reverse Traceroute, I introduced six new undergraduates to the project, teaching them to write code, run experiments, and ultimately pursue their own research questions. I am especially proud of Finn, a student I met incidentally at the philosophy writing center when he was first deciding whether to apply to the computer science major. I later convinced him to participate in research, and he started on the Reverse Traceroute project a few months after joining the major. Throughout this process I saw Finn progress from a newbie programmer to a competent researcher; I am delighted to hear that Finn was recently offered an internship at Google! It is precisely this sort of feeling that motivates me to collaborate with undergraduates on my current projects as a graduate student.

I became interested in technology for developing regions during a two month trip through Ecuador, Peru, and Argentina before beginning graduate school. I saw immediately upon arriving that the economic and educational disparity between the U.S. and developing countries is *tremendous.* On multiple occasions I caught myself thinking "Why isn't this process automated?". Gaps in the market have caused problems to persist in developing regions that were solved long ago in developed countries. Consider malaria, a disease that was removed from the developing world in the early 1900's yet continues to persist in developing countries today. My experiences in South America showed me that these problems are excellent opportunities as an academic to bring about meaningful and much needed change in people's lives.

At the same time, my trip to South America helped rid me of naivete about technology for development. As a technologist who sees computers as a tool, I was surprised to see that many Ecuadorians use computers for little more than Facebook and instance messaging. I see now that simply saying "Here, I brought you Internet" does not suffice to bring about *meaningful* changes in these people's lives. It is absolutely necessary to understand the values and interests of the people I intend to help, and take the time to educate them about the many possible benefits of technology.

Now that I am in graduate school, I see more than ever that academia is the best environment for me to pursue activities and interests that will allow me to affect positive change on the world. My expectations for growing as a person in graduate school have also been far surpassed; I have learned a great deal thus far, and I am only two months in! UC Berkeley in particular is strong in both networking and ICTD, and I am privileged to be surrounded by phenomenal peers, teachers, and mentors.

I hope to continue pursuing my research interests as a professor after obtaining a PhD, as I feel that particular career will give me the resources and flexibility to work on important problems that, due to failures of the market, are largely ignored by the innovative forces of the technology industry. The NSF Fellowship would greatly assist me in achieving my career goals by providing me the flexibility to boldly pursue my new-found interest in bringing meaningful access to technology to the under-served populations of the world.