Teaching Statement

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As a postdoctoral fellow at UC Berkeley, I've had the opportunity to work on research projects with seven graduate students across Prof. Malik and Prof. Darrell's groups. With two of these students, I've had the opportunity to act as a co-advisor and assume a more substantial mentoring role. I have found these experiences to be surprisingly rewarding.

I enjoy guiding students through "big picture" questions that help support and define a research project. Sometimes these discussions take the form of delineating arguments for why a particular problem is the right one to solve. Other times, they take the form of crisply formulating a good sequence of experiments to conduct. Teaching students to be researchers is a critical piece of graduate-level education, which takes place primarily outside of the classroom. Interestingly, many of the computational tools that we use in our research can also be applied as meta principles to the research process itself (such as the notion of a "cascade"). I have found that students often enjoy looking at their own research process through this recursive lens.

I have also had the opportunity to gain experience in the classroom, primarily by giving guest lectures in upper division computer vision courses. I've lectured on object recognition in graduate-level classes at UC Berkeley (CS280) and Stanford University (CS231B). I have also taught kernelized support vector machines in a mixed undergrad and graduate machine learning course at Berkeley (CS189/289A). As a graduate student, I was a teaching assistant in computer vision, graphics, and introductory computer science classes. This work involved preparing and grading assignments and exams, leading classroom and lab sections, and holding office hours.

As an instructor, I aim to present material with clarity and intuition. In computer vision courses, I find it useful to ground concepts with demonstrations that use real implementations and data. I want students to feel like explorers of data and algorithms. Gaining deeper insight and understanding into lecture material often requires investigating the space around the central concept taught in class.

I will be able to teach a range of classes, including intro to CS courses that focus on programming, data structures, and algorithms. I enjoy the elegance of these topics and wish to convey that enthusiasm to students. Naturally, I look forward teaching computer vision to both undergraduate and graduate students. I would also be a good fit for teaching an undergrad machine learning and pattern recognition course. I believe that it is important to give CS students a strong grounding in machine learning. Machine learning knowledge and skills are highly valuable to students seeking some of the most coveted jobs at places like Google and Facebook. Here, I think it is important to make sure that students have a solid grounding in both theory and practice. I believe that engaging students with relevant data, for example a project that applies machine learning tools to analyze Twitter feeds, is a great way to keep students excited by highlighting the practical utility of what they're learning.