My favorite moments as a teacher have not come in a classroom, but instead as I have taught my children. I remember running alongside my son, holding him upright while he pedalled on a bike for the first time. Letting go of his shoulders and watching him ride off down the sidewalk created a special feeling, only topped by his look of pure joy as he continued to ride, all by himself. My feelings about being a teacher are captured by this experience. A teacher should not only convey information, but also give a student the support, encouragement, and inspiration they need to be able to learn, grow, and move forward on their own. A teacher who inspires, gives appropriate feedback, and cares about students, will be amazed at what the students accomplish. That sense of awe in the learner is what I felt as my son rode off on his bike, and it is what motivates me as a teacher.

As the sole instructor for an undergraduate course at Stanford, Introduction to Artificial Intelligence, I thought a lot about what I could do to inspire and motivate students. I had applied for this opportunity, which is not a requirement of Ph.D. students, and was excited to have the chance to prepare and give lectures, design and grade homework and exams, and supervise a teaching assistant. I decided to show a video during each class that demonstrated an interesting application of an artificial intelligence. Due to the wide and ever-increasing number of artificial intelligence applications and innovations, I easily found many fascinating videos, and I felt that the videos helped students catch the vision of just how the world had been, and could be, impacted by what they were learning.

In an effort to keep the class interesting, I also made a conscious effort to experiment with aspects of the class, especially lecture delivery. I varied between using slides made by previous instructors of the class, making my own slides, and using the chalkboard to work live examples. This experimentation helped me find my personal voice as a teacher. During the class, I also noticed that students were more motivated and inspired when the syllabus allowed us to study topics in some depth. Another source of inspiration can be the use of a problem-centric approach. If students understand and care about a motivating problem, it will be easier for them to see the value of what they learn. I believe that students must be challenged in order to grow and learn, but motivation is crucial, since genuine challenges can appear as torture to the uninspired student.

I saw the impact of frequent, appropriate feedback as a teaching assistant for Probabilistic Graphical Models, with Professor Daphne Koller. Before each class meeting, there was a short online quiz testing comprehension and application of the assigned reading for that day. I quickly appreciated how these quizzes incentivized students to come to class prepared, having completed the required reading, and having already received preliminary feedback about their comprehension of the material. This allowed Professor Koller to spend far less time on simple definitions and concepts from the reading, and instead focus on clarifying misunderstandings and working in-depth examples to really solidify concepts and techniques in the students’ minds. This was in stark contrast to previous classes with which I had been involved, where teachers would have to cover the basics, which in addition to taking time away from more interesting classroom activities, can also leave prepared students bored and uninspired. Personal feedback also plays a critical role in a teacher’s success. Teachers should constantly be self-assessing and reflecting on how well their techniques are working with their current students.

Lastly, a caring relationship between teacher and student can make all the difference in the success of the student. I believe that the job of a professor will change in the coming years, due to the growing popularity and quality of online classes. Teachers everywhere will have to adapt in order to continue to offer value to their students. The question becomes, why would someone want to take my class rather than some free online course? As I have considered this question, I have come to feel that, when all is said and done, the best teaching solution will be a hybrid of both approaches. The most effective teachers will allow students to learn the basics and hone their intuition in online interactions, like Professor Koller’s quizzes, on their own time. These teachers can then focus their instruction time on things that cannot be offered by online classes – working through open-ended example problems, giving students individual feedback, and offering insights gained from personal research experience. Many of these advantages of in-person teaching can be summarized by the fact that teachers who are physically present can know and care about individual students. I feel that caring is ultimately conveyed to students through time and effort. My goal as a teacher is to be approachable and to always have time to talk to and work with students, and also to expend the necessary effort to learn and address them by their names.

If I can inspire, utilize frequent feedback, and care about students individually, I am confident that students will be able to achieve awe-inspiring success and accomplishments as they move forward in life with new skills, confidence, and motivation.