Inspire passion. The core mission of a teacher is to transmit excitement. I have found that a passion to learn is the most significant predictor of success among students. Uninteresting classes are met with little enthusiasm and effort. In contrast, classes that excite students encourage them to perform far beyond the requirements. More importantly, this excitement is often lasting, providing the foundation necessary for a lifetime of learning and thinking. Most people can name one or two teachers that had an impact on their development. How much better would education be, if every teacher had that same impact on their students desire to learn.

Fortunately, classes in computer vision and computer graphics naturally inspire passion in students. A class on animation often covers material from the latest blockbuster films, and interactive graphics can be effectively taught by guiding students to produce their own video game. Similarly, classes in computer vision and 3D photography naturally relate to topics that draw students in.

Expose undergraduates to research. Undergraduates can often be inspired by exposing them to research. We typically institutionalize the goals of a university by focusing undergraduate education on teaching core knowledge, and graduate education on researching. This distinction often hides the true capabilities of students. Undergraduates are perfectly capable of understanding the ramifications of a technology and the potential applications it might have. Class projects that invite students to explore new applications of core concepts are far more likely to generate excitement, than are toy problem sets that do not relate to concrete goals. While undergraduates are generally not yet prepared to explore deep research topics, I believe that class projects should invite students to understand the research process. The experience of creating something new, however incremental, has the power to inspire enthusiasm and passion.

Advise students. The opportunity to interact with students that is the primary reason I seek to return to a university. Advising is the central method by which professors teach and inspire. Although the notion of a formal research advisor is clearly useful, I believe it is the informal contact between faculty and students which is more valuable. Nearly all students to whom I have spoken value the individual attention and guidance they have received more than the lectures they have attended, and research goals they have been given. They often cite a particular conversation as changing the course of their lives.

In my own experiences with teaching, I have found one-on-one conversations with students to be the most rewarding. Office hours and chance encounters in the hallway both provide a chance to lead students to the truly magical moment of 'ah ha', when they finally understand. In addition to the intangible personal reward of helping students along their path, I find that this interaction forces me to grow, think, and dream about ideas I would never have encountered on my own.

Embrace the intellectual challenge. Teaching is an intellectual challenge far more difficult and rewarding than conventional research. I often hear teaching referred to as a burden, composed of lectures to write and students who don't understand the material. This attitude is inconceivable to me. Of course I am familiar with the enormous effort required to prepare for the classroom, but I view teaching as a fantastically complex research problem. How do I best explain material so that students understand? How might I verify that students are learning? Can the process be made more efficient? Are there any failure cases? The same questions that are commonly applied to research, can be applied to teaching. The process of guiding and inspiring students is complex, but not unconquerably so. Rather than turn away, we should embrace the intellectual challenge.

Technology for teaching. Technology has the power to transform teaching. This can occur both within traditional classrooms and by changing the nature of education on a global scale. I actively seek out applications of technology to education. At the classroom level, I developed one of the first multimedia applications designed for teaching introductory music appreciation. This application was successfully used to teach thousands of undergraduates, eventually being rewritten and published by Prentice Hall. I believe it is appropriate for educators to think on a scale larger than a single classroom or university. At the global level, computer generated and transmitted imagery has the power to extend education well beyond the traditional confines of the ivory tower. My research program is intended to ensure that computed imagery is powerful and compelling. This will allow delivery of graphic visualizations, educational movies, remote lectures, and virtual teachers even (and perhaps especially) to students living in the most remote reaches of the world.