John Joseph

A Brief Introduction

Hello Professor,

My name is John Joseph, and I am an undergraduate student studying physics and computer science. Physics was something that hooked me at an early age, and although I came to BU as an engineer I opted to transfer into the physics department and haven't looked back. Physics appeals to me for a number of reasons, but the biggest one is the diverse set of disciplines of which the subject demands an expertise. I've always considered myself the "jack of all trades" sort, and physics forces its students to master several key areas of analytic and numerical problem solving to tackle the questions of the everyday. This is perhaps what attracted me to your course in computational neuroscience: it puts the mathematics I love on the bleeding edge of a very new field, making use of fascinating techniques in a context I've never seen them in before. From this course I hope to solidify my understanding of analytical and computational problem solving while applying that knowledge towards simulating the most beautiful and perhaps most used organ in the body: the brain.

Though I may get some flak for saying this, I truly have no intention of being an academic physicist. The physics major, however, was the perfect choice because it exposed me to things I never would have dreamed existed, and the challenges it poses force me to keep on my toes. As I mentioned before I came here as an engineer, but by making the move to CAS I've been allowed academic pursuit in a number of fields that interest me. The combination of physics and computer science lends itself to computer graphics and animation quite nicely, and I must admit this is something I'm especially passionate about. Animation studios like Pixar and Disney are doing some incredible with visual storytelling while maintaining a high degree of scientific excellence, and that fact alone makes me think computer animation is the field in which I belong.

While I won't carry on too much about that, a field like computer graphics is a perfect example the diversity one finds when looking at the applications of my degree. This brings us back to my motivation for enrolling in your course; the techniques of programming and simulation have applications far and wide, and by throwing myself into a graduate level neuroscience course with an emphasis on computation I hope to stretch and strengthen my abilities as a scientist. I'm looking forward to a great semester, professor, and with you guiding me I hope to expand my horizons and truly push myself to greater heights.