

Interview with Christopher Grieco, Software Engineer

Why did you become a scientist/chemist/researcher?

C.G.: I first became interested in science during my freshman year in High School, when I took Biology taught by Maria Bulis.

I became fascinated in the cellular processes that support living things, including the human body. By the end of High School, I shadowed a research lab at Columbia University led by Sanil Manavalan, where I became interested in biomedical research. Being able to solve complex, microscopic problems in medical science and pathology using the tools of science was remarkable to me.

During college at Rochester Institute of Technology, I became very passionate about math and learned that I was more of an analytical thinker; I slowly learned my scientific talent did not lie in biomedical science, but rather in chemistry, which is much more analytical in nature. During my third and fourth years of college, I worked in a physical chemistry lab led by Chris Collison, who helped me realize my skills and passion in optical spectroscopy.

I realized how powerful and versatile optical spectroscopy was for solving countless scientific problems that are not limited to any specific scientific discipline. From then, I knew I wanted to pursue a career in scientific research with a focus on optical spectroscopy.

Have you thought about how these products could change the world?

How so?

C.G.: Early during graduate school, as I was assembling and programming transient absorption and photoluminescence spectrometers for my own research, I always thought about how useful they would be for labs around the world.

Similar technology, which was typically home-built by physical chemists, was not commercially available at the time, yet they could solve so many problems in many different scientific disciplines outside of physical chemistry.

I quickly learned the spectrometers also had a place in the chemical industry, where they could be used in research and development and even quality control. What is so special about Magnitude Instruments' spectrometers is that they can be used to study molecular-level structures and processes that underlie countless properties and functions important throughout science, including biology, biochemistry, chemistry, materials science, and physics.

What inspired you to create these products?

C.G.: My own scientific research on solar cell materials inspired me to create these products. I learned that advancing our understanding of the molecular-level structures and processes in materials requires instrumentation with better sensitivity and higher throughput.

Often the smallest signals in samples are needed to address the most important questions! With all of this in mind, we strove to develop and push the technology behind our products to its limits to bring people the most sensitive spectrometer possible--one that was very simple and enjoyable to use.

This was essentially my beginning at Magnitude Instruments.