High school physics is a challenging experience even if one is good at math and loves science. There are many tangible experiments (such as the famous mousetrap car competition) that build understanding of fundamental principles in physics. However, the moment class dives down into subatomic particles, we move into an abstract world where most students' eyes glaze over. That is where the NSF QuarkNet Masterclass came in – and changed the course of my academic life.

The Masterclass gave me a taste of real scientific research in a feet-on-the-ground experience that had a huge impact early in my academic pursuits. It was the first time I had seen the equations and case studies applied in context. While I ultimately have chosen not to focus on research in particle physics, it was crucial to my grasping the complex, emergent properties of matter, and provided the impetus to embrace research and science engagement as a career.

The QuarkNet funded activities and the inspiration fostered by my teacher, Mr. Fetsko had such an impact on me that I still frequently speak about it as one of the defining points of my academic life. These types of activities that provide exposure to research are simply essential if we hope to motivate a new generation of young people to pursue the sciences, and to grasp the key role elementary particles play in defining how the world works.

P.S. One of the outgrowths of my QuarkNet Masterclass experience was to later create/author the "Physics Outreach" Wikipedia page, which included the role of QuarkNet.

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