

As someone who went to schools without many STEM resources, I became interested in physics by watching YouTube videos as a child. I probably owe my astrophysics degree to Michael from VSauce. I had never seen these topics before I watched the videos I did, and now I study them for a living, so I know the impact that easy to access and easy to understand learning resources can have on young students. Laidlaw has provided me with the opportunity to continue this pseudo-tradition in the scientific community of making physics accessible to anyone with access to the internet.

My reasons for applying to Laidlaw were pretty simple: I needed lab experience, and I needed rent money. In the most cliché way possible, I got so much more. Yes, I got more experience in computational physics and Python programming, which I will be starting a PhD in next year. Yes, I paid rent with about £4 to spare. But if I'm honest, those were minor advantages gained from what was one of the best parts of my undergraduate experience. I made friends and connections both in the York Plasma Institute, where I spent the duration of my project, and friends within the Laidlaw cohort that I will carry with me much longer than I will carry my poster from last year. I gained invaluable experience in leading my own scientific research, which is unheard of for an undergraduate in a physics lab. I learned how to plan, execute, and present a self-contained project that was managed entirely by myself, and could benefit other physicists in the field. The experience has been invaluable as I continue on into physics, albeit not in fusion, but the only way you can know you don't like it is to give it a go. And I'm glad I did.

What was most surprising to experience was how invested I became in the community outreach once my research was done. I joined the program to research; anything else was originally considered just another task I had to complete as a means to an end. Yorkshire is home to a lot of low income schools and students who often don't have the resources to learn about the science I do for a living. But, these obstacles can be overcome if someone is willing to take the time to make learning accessible to everyone. I ended up throwing myself into VR development to make fusion physics an approachable and engaging topic for students of all ages anywhere in the world. I produced five 360° videos on different topics in fusion physics, and the York PET Outreach team has been using them in VR headsets during outreach events. These videos are expected to eventually be on the school's YouTube channel so that students anywhere can access these learning resources. As I write this, they're being used with the PET team in Durham to teach young students about how fusion works.

Doing this project has been fulfilling in a way that is hard to put into words. I get to provide for others what was provided for me, and continue to garner interest in a field I love dearly.