

University of Chicago Admissions Committee,

During my first years at university, I didn't feel comfortable with leaving Spain to study abroad. That wasn't the case in my senior year when I decided to give it a try. I extended my undergraduate studies one year in order to spend it studying abroad, as well as taking extra subjects I was interested in. I, therefore, applied to TASSEP program, and my good grades assured me of a place in my most preferred university: UNC. This meant a great achievement for me, however, I decided to take the opportunity even further and started looking for professors at UNC that could offer me a research position in their laboratory. I messaged all the professors in the Astronomy department and ended up choosing Dr. Sheila Kannappan as my research advisor because we had similar research interests. I couldn't believe that my first research experience was going to be in one of the best public universities in the US.

When the school year started, and I arrived at Sheila's office, she offered me two research projects to choose from. After her briefing on each of them, I still had no idea what either of the projects were about. However, I chose the one that sounded better in my head. I was amazed at how the same obscure jargon at the beginning of the year sounded so natural a couple of months later. It took asking questions, reading papers, fighting with Python, learning Vim, and dealing with English to get familiar with my project. I like to compare my research experience to when I was a baby. Everything was new to me, and I learned new things very quickly. Nevertheless, I got stuck in some aspects: I found it particularly challenging to communicate my questions to Sheila, because my project was very technical, therefore the questions I had were very specific, concise, and subtle. Nevertheless, I overcame this challenge by persevering on the practice of formulating complex questions. Halfway through the fall term, I predicted I was not going to have time to finish my project in just one semester. This is something I wanted to avoid that by all means, because it had taken me so long to understand all the whole thing, and therefore I was determined to finish what I had started. Consequently, I contacted my university in Spain and asked them if I could extend my program to one year. After many emails and visa appointments, I arranged everything to stay at UNC till the end of the year.

Dedicating so much energy and time to one single project was tiring, so I had to take breaks. In the middle of the second semester, I dedicated two weeks to a side project on weak lensing, a branch of cosmology. I educated my self in that area to be able to give a talk to my research group on that topic. Doing this empowered to go back to my project, and finish it.

By the end of the year, I had already given poster presentation talks at conferences, talks to my research group, and talked to other research group members about how my code would interact with their research. In the end, my project was graded with an A, the highest score UNC awards. I also presented it as my final thesis in my home university, and it was awarded 9/10.

Overall, I consider my first research experience in the US to be my biggest academic challenge so far. Overcoming it made me grow academically and personally. Academically, I learned how to communicate complex ideas and questions to my supervisor in a language that was not my native language; to present my results to people from outside

the field; taught myself python and other tools such as VIM and GitHub. At a personal level, I learned that obstacles will always appear in research, and the beauty of science is to persevere and come up with a solution to it. I learned to be transparent and honest about my ignorance and questions. I understood that if we are aware of your lack of knowledge, and we are passionate enough to fill it with new concepts, we can begin to understand the world around us.