

Dear University of Washington Admissions Committee,

I consider my final thesis to be the biggest academic challenge for three reasons: first, I did it abroad; second, it was my first research experience; and third, I had to learn many things at the same time to keep up with the level I was expected to have.

During my first years at university, I didn't feel comfortable with leaving Spain to study abroad. However, in my senior year, I felt ready enough. This, combined with the fact that there were so many subjects I was interested in, made me decide to extend my undergraduate studies one more year, to spend my last year 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 due to 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 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. However, 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 generated 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 that had made me 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 in 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 as my final thesis in my home university, and it was awarded 9/10.

Overall, I grew personally and academically, like never before. 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. Personally, 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 you are aware of your lack of knowledge, and you are passionate enough to fill it with new concepts, the key to understanding the world around you.