



August 31st, 2021

Undergraduate research

Deciding to go to graduate school is a big commitment and requires a lot of preparation to bolster your application. Throughout my time at the University of Pittsburgh there are key steps that I took to prepare myself for applying to Graduate school.

The best step I took to prepare was getting involved in undergraduate research. When applying, schools value your research statement and want to make sure that you have had experience in the lab. Finding a research group to join can sometimes be challenging, but I urge you to find a group whose research you find interesting. You will mainly be doing research in graduate school, so it is important to find an area that you like. Another aspect of a research group that is important is the people in it. You want to find a group that you feel comfortable in and that supports you. The advice and mentorship that I received from the people in my undergraduate lab was invaluable. I learned so much from the elder students and always felt supported in my decision to go to graduate school. The graduate students in your lab have all gone through the application process, so they will be your best resources when applying to schools. One of the most important tips I could give is to be engaged with the research you are doing. It is easy to fall into a trap of just doing whatever your mentor tells you to do without really understanding the chemistry. Make sure you take the time to read up on what you are doing and ask a lot of questions. When you are in graduate school, you will be the one leading your own project, so it is good to get into the habit of coming up with new ideas and understanding exactly what you are doing.

Throughout graduate school you will most likely become a TA and have to teach some courses. Knowing a topic and teaching it are two completely different things. Having experience teaching as an undergraduate is really good practice for when you have to do it later on in graduate school. Being able to fluently explain concepts to others takes practice, so it would be a good idea to TA for some courses as an undergraduate. Teaching will also reinforce your chemistry knowledge and hopefully benefit you in the lab. Another way to strengthen your chemistry knowledge is to take graduate level chemistry courses. Learning something the first time around can take some time, so familiarizing yourself with some advance topics now will make it easier when you are taking classes in graduate school.

One last tip I want to give is to get involved in chemistry related outreach. This is helpful for if you want to apply for the NSF Fellowship. The University of Pittsburgh ACS club does several outreach activities throughout the year that would be good to get involved in. The ACS club at Pitt will also bring in guest speakers such as professors and people from industry that talk about graduate school. These are good opportunities to learn more about what you are getting yourself into.

Preparing to go to graduate school is a huge task and requires a lot of hard work. Though it seems daunting, you have many years to prepare and there are plenty of people to go to for help if you need it. To anyone who has decided to go to graduate school, I wish you the best of luck!

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