

In November of last year, I was just a third-year college student, dipping my toes into the world of laboratory research. I wasn't entirely sure what I was doing, much less why I was doing it. Research, however, seemed intriguing—a chance to push the boundaries of science, particularly in the realm of chemistry. Then, one day, I received an email from the Office of International Affairs. It was about a research internship opportunity for the upcoming summer at a small institute halfway across the world, in the so-called "land of the free." Coincidentally, I was in the process of obtaining my U.S. green card and needed to travel to the States anyway. This small institute, as it turned out, was ranked among the top ten in the world—a prospect that could significantly boost my future career. So, I thought, why not apply, even if just for fun?

For my specific research focus, computational chemistry, several professors were within my area of interest. But among them, the most prominent was the renowned Professor William A. Goddard. As one of the leading figures in computational chemistry, his lab was an ambitious goal. Yet, after some deliberation, I decided to apply anyway—what's the worst that could happen? He could say no. And say no he did. But after I mentioned NTU's collaboration with Caltech, made possible by Dr. Oyang's generous donation towards our award stipend, he agreed, albeit probably reluctantly, to take me on as a SURF student. This was fantastic news, but now I had to prove that I wasn't just a slacker and accomplish something beyond my capabilities. As summer approached, my anxiety grew. Would the professors and post-docs regret having me? Would the Caltech students look down on me for not measuring up to their standards, both academically and practically? There was only one way to find out. And find out I did.

The internship began smoothly. My postdoctoral mentor gave me a tour of the lab and office, setting me up with my own workspace right across from his. He helped me set up all the necessary credentials and guided me through the software I would be using. Everything seemed to be going well. On a personal note, my uncle's family lived in California, making my daily life much easier. They provided me with a bike, a mini-fridge, and free meals every few weekends when I visited them. The research progressed well too; after several meetings with the professors, we finally pinpointed the specific work I would be focusing on. Even my tendency to procrastinate was taking a backseat—I found myself working late into the night, often leaving the lab at 1:00 AM and even coming in on weekends. My physical health improved significantly as well; I consistently went to the gym, practiced football six days a week, and played with other Caltech alumni twice a week. The other NTU SURF students were also a blessing, providing much-needed relaxation and camaraderie. Everything seemed to be looking up.

However, as the last four weeks approached, things took a downturn. The research results were the opposite of what we had expected, and numerous issues arose as the details of my work became more critical. Additionally, after interacting with the local students, it became painfully clear just how vast the gap in competence and capability was between them and me. My motivation waned, replaced by a growing desire to simply end the internship as quickly as possible. But this wasn't the end of my story.

After days of careful reflection, a thought struck me: Why was I so afraid to ask for help? I had been deeply concerned that if I sought assistance from the professors and mentors, they would see me as weak and incapable, especially compared to the alumni around me. But then another thought occurred to me: Why should it matter if I'm weak and incapable now? The purpose of this research experience wasn't just to showcase my abilities, though that would have been nice; it was to build and hone my skills as a researcher. I realized that I shouldn't fear embarrassing myself in front of my mentors—I should fear not learning enough from them. And

to learn from them, I needed to ask questions, regardless of whether they made me look smart or not. This was a major turning point for me.

After I brought these issues up with my mentor and professor, they were incredibly kind and understanding. They encouraged me to be braver, to ask questions, and to experiment with new ideas, even if I had zero experience in those areas. A major hurdle I had faced in research was my fear of exploring new possibilities, sticking only to what my mentor or professor suggested. After this epiphany, I began thinking of new approaches to my research. Not only did this increase my productivity tenfold, but it also gave me a new kind of motivation—one driven by a desire to learn and improve my skills instead of simply not disappointing my mentors. While many people might say the biggest reward of an internship like this is the opportunity to learn from great minds, for me, the greatest reward was my personal growth and newfound understanding of what I want in life and how I approach challenges. This is the most significant takeaway from my research opportunity this summer.

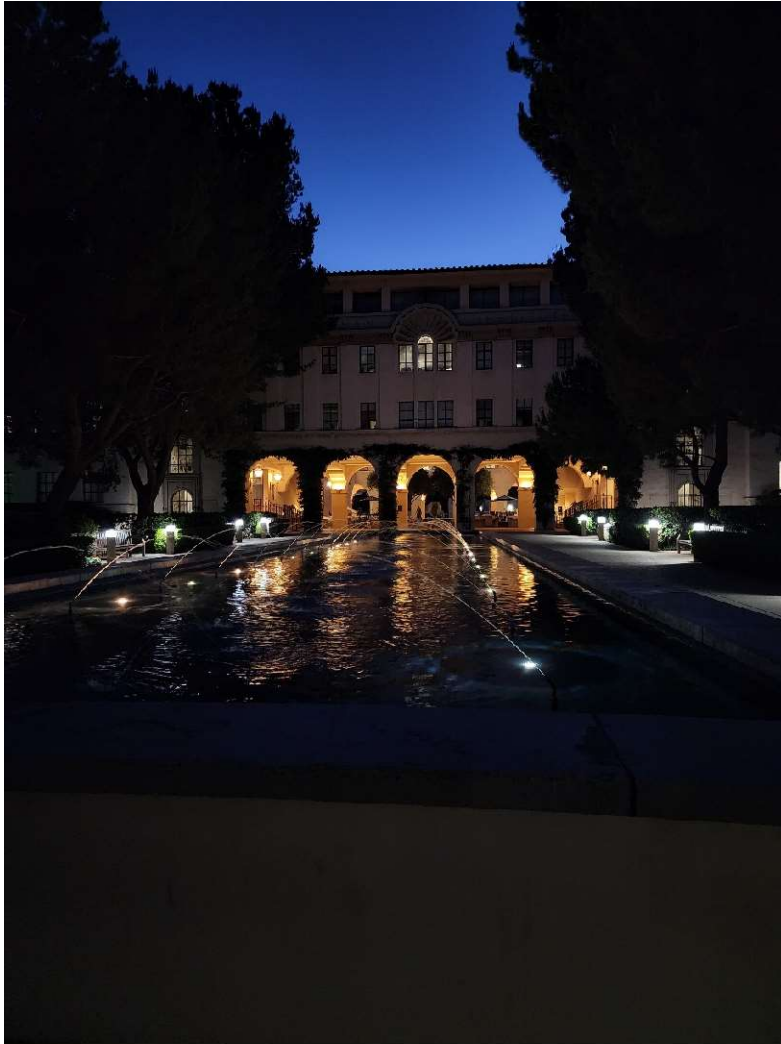
In conclusion, this internship was likely the most pivotal experience of my life—not only because of the future opportunities it might open up, but more importantly, because of the profound impact it had on my personal development and character. I owe a deep debt of gratitude to Professor Goddard for giving me this opportunity and advising me on my research, to Dr. Tridip Das for guiding me every step of the way, to my lab mates Arya Riasati, Zhang Chi and others for their invaluable suggestions and support, to Dr. Oyang for funding my SURF award stipend, and to my uncles and cousins for their unwavering support throughout my stay. Ultimately, my success in this internship was not just the result of my own efforts, but the collective assistance and encouragement of my friends, family, and colleagues. And for that, I am profoundly thankful.



*A picture of me with Professor Goddard during one of our weekly group dinners.*



*A picture of me with Dr. Tridip Das, my main mentor during the internship.*



*The water fountain in front of Beckman Institute, my lab/office building.*



*A picture of my lab/office space. Not the most clean and modern place, but cozy and comfortable.*