<u>Personal Statement | Sandeep Kumar</u>

During my undergrad, I worked on several academic projects which exposed me to a variety of technical disciplines (from Mech Design to Embedded Design). I learned more through conducting experiments and reasoning on the observations. Also as a robotics enthusiast, I competed in (and won) several robots competitions. A typical competition can be very intense and requires a lot of travel when the school is in session. These competitions regularly observed over 100 teams from different universities. As a result, slots for a 15-minute trail run for any team would be limited and would typically occur extremely early in the morning (3.30 AM, as competitions would start at 8 in the morning). Taking part in such events made me more tenacious. I became extremely resilient to sleep deprivation in those days. The activity of investigating bot failures during trials, innovating under a scarcity of crucial electronics to make them operational, and working in challenging arenas left a lasting impression on my approach towards any endeavor (it has also aided me in my career at Qualcomm). Overall they made me more industrious.

Interning in the Systemic Modeling Laboratory (LAMS) at the Swiss Federal University Lausanne (EPFL) during summers under the Late Prof. Alain Wegmann allowed me to become a proficient system designer. Designing a real-time sensing and communication platform capable of communicating with multiple sensors while consuming only mW of power sharpened my investigative and debugging abilities. Conducting field research at EPFL and in India was a terrific learning experience. I'll never forget staying in these remote locations and building them to withstand severe dusty winds at 120 °F (50 ° C). Moreover, testing and strengthening the platform after analyzing its failures in extremely harsh environments aligned my thinking to cater to and differentiate the gaps between working in lab settings and fields.

One important issue in recent times, untreated kidney stones, hampered my health in late 2015-early 2016. To make matters worse, I was incorrectly diagnosed with Jaundice. This catastrophe prevented me from eating even twice a day. In my 7th and 8th semesters of undergrad, I missed lectures and research labs due to chronic pain. I was worried I would never recover. However, my symptoms indicated that I never had jaundice, so I went to a different hospital and persisted throughout the year. Fortunately, I recovered and worked day and night to do well in subsequent semesters. I became aware of the significance of excellent health. I gained confidence after successfully completing a research project in the ninth semester. Since then, I have never looked back. Later, I strengthened my physique and worked on myself. I even took on the challenge of mountaineering and did it well. Losing hope and optimism is a serious impediment to experiencing life and leads to despair. I understood that, in these bad times, one could only execute his or her natural routine and be patient.

I am fortunate to have had unique experiences interacting with individuals from a wide variety of backgrounds and cultures, many of whom have their own language and customs. I had the opportunity of meeting with students and professionals from all around the world during my time as an undergraduate in India, an intern at EPFL, and now at Qualcomm. As we interacted and shared stories about our experiences, I realized how diverse people are. The difficulties, successes, and problems they've had to overcome have given them a particular lens through which they view the world. It's exciting to put on their lenses and view the world through their eyes. This will assist us in being more aware and taking measures in our daily lives to create a society that is more welcoming to all. I hope to continue on this path as a Ph.D. research scholar.