"The true joy in life is being used for a purpose recognized by yourself as a mighty one."
- George Bernard Shaw

Technology in every form has always been something that I have craved for. The growing desire to excel in the field, fueled with my logical approach, inquisitive nature and analytical disposition, helped me cement my foundation in engineering. I now foresee myself contributing significantly and leaving a mark in field of Communication Engineering.

At the young age, I learnt Vedic mathematics from my grandfather, a high school math teacher who taught the importance of logic and rationality early in life. During my high school, the Head Master and Science teacher [redacted], piqued my interest in the subject. The experiments he used to demonstrate in our science laboratory had a profound impact on me. I also wanted to be able to check, measure, quantify and validate scientific ideas by bringing them to life through experiments as he did. Quite naturally my first thoughts about a future career tended towards research. I wanted to be another [redacted]

I have always been attracted towards subjects that draw upon one's analytical mind. Consequently, Electronics and Communications as my choice for undergraduate study seamlessly fit in. Each subject in this discipline intrigued me in its own way; but I channelized my zeal into communication topics and further, getting into my field of interest reflected positively in my academic performance. I often stayed back in the laboratory to exercise my passion for electronics. Very soon, I began appreciating technological advancements and took keen interest in Robotics [redacted]

During my 6th semester I involved myself in a project named "Intelligent Room Light Controller System" which mainly focused on building a smart home/ auditorium where energy usage can be scaled down significantly. As a team, we worked to build an architecture that makes the software robust by optimizing the usage of RAM, code space, processor cycles, and power. This helped me understand the intricate aspects of developing an embedded system.

In my final year, I took up a research project that would integrate two of my best interests- Communication and Robotics. I came across people who closely followed developments in the field of Artificial Intelligence and together, we conducted a vast literature survey on Robotic systems. The scarcity of standalone speech recognition systems in market motivated us to build a Multilingual Speech Recognition System on a Humanoid Robot. It was a real challenge to make this system speaker independent and also achieve results in different kinds of noisy environments. As this was built on a Linux Platform, shell scripting was necessary. I took this opportunity to learn the scripting which greatly accelerated our progress. Meanwhile, we wrote a conference paper - Bilingual Speech Recognition System which was awarded best research paper in International Conference of VLSI and Signal Processing-2012. My proficiency in robotics was greatly utilized in accomplishing the objectives of project. This robot named Optimus, gained appreciation among professors in the department and was showcased at three National Level science exhibitions.

In order to gain industrial exposure, during my semester breaks, I underwent training in BSNL, one of the largest cellular service providers in India. Here, I learnt about different modulation techniques used in various cellular applications. Later, I engaged myself in the Industry Connect program to familiarize the concepts of RFID technology, mobile technology, Integrated Circuit design and product life cycle.

My stay of two years in Robert Bosch is going to be very significant in my life since it has helped me not only to expand my horizons in technical field but also to incorporate professionalism into the work I do. I joined the communication department of RBEI which worked mainly on development of application software based on CAN and FlexRay protocols. Initially, I found it hard to adapt to stringent deadlines, develop technical expertise and achieve impeccable product quality demanded by customer like BMW. But I organized myself quickly and worked diligently to gain the required competency. Subsequently, my technical knowledge gained me recognition in the department and I got the opportunity to take up roles of higher responsibilities early in my career. Meanwhile, I attended organizational trainings, travelled to different locations to give technical presentations and relentlessly took learning from all facets of the industry. As part of Corporate Social Responsibility, I also involved myself in various activities such as Social Environmental and Welfare Activities (SEWA), Green Planet etc. during my weekends.

The extracurricular activities instilled confidence in me to face various challenges and also invoked my leadership qualities. I was an active member of IEEE student branch and an editor of IEEE newsletter in college. I worked as a Team Volunteer for varied technical events and organized three national level technical meets at my college.

I've realized that my learning attitude and professional skills can help me elegantly leverage the next two years to gain knowledge and contribute to this field considerably. I'm looking forward for an opportunity to carry forward my research on Signal Processing and continue to explore the field of Communications Systems. I'm keen to work in Prof. Gerhard Kramer's research group which works on turbo processing and its application fields; also a chance to work on projects such as DLR@Uni - Munich Aerospace would be a tremendous learning experience.

In selecting the Technical University of Munich I have been influenced by the work culture of the university and its strong bonding with the industry. I have been corresponding with [redacted], a current student, from whom I have learned about the collaborative environment at the University. I believe that the knowledge base at Technical University of Munich and interactions with talented students, teachers and industry professionals would facilitate my growth. I earnestly hope that my sound technical knowledge and professional exposure, along with my exceptional academic records, qualify me for admission to your institute.

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