

Growing up in a small remote village of Uttar Pradesh (India), I spent my childhood in world with no to very little access to electricity. It was only when I moved to the city with my parents for my Higher Secondary education, I was introduced to computers. I was astonished to see a device that I had previously only seen in movies, and the school computer lab quickly became my daily destination. From using Calculator, Paint application to access Internet and Gmail I was hooked on to the Computers since then. It was only then I became curious that how these computers are built, how these Softwares are built and work and this curiosity led me to a book named 'Let Us C' by Yashwant Kanetkar P during my Senior Secondary school. This book introduced me to a new world of Computer Science and I subsequently chose to major in Computer Science as an undergraduate.

With my eyes clearly set on the goal and my intense interest in mathematics, and penchant nature towards Computer Science made me choose Engineering in Computer Science. And thus following my good performance in academics, I prepared and cracked Engineering Entrance Examinations in India and enrolled in a reputed government funded institution named Ambedkar Institute of Advanced Communication Technologies and Research (Now NSUT East Campus). It was only when I studied core Computer Science subjects like 'Operating Systems', 'Database Management', 'Computer Organization and Architecture' my perspective that Computer Science is only about Programming and Softwares changed. I found these subjects to be most intellectually stimulating and engaging. I visualized the beauty of Computer Science and Engineering in my undergraduate course after dealing with these subjects. It was only when I took up the Machine Learning course by Andrew NG on Coursera as a preparatory course for project work in my fourth semester I got to know about my true passion. I was fascinated on Machine Learning from the first day I took that course, further I got in depth industrial exposure to this field through my Internship work in Machine Learning at 'Mekvahan' a leading automotive service provider in NCR region of India. There I worked on a model to predicting the wear life of a tyre based on Image Processing and Machine Learning and learned various other technical skills like techniques of Data Cleaning, Data Preprocessing, Data Wrangling and soft skills such as time management, task completion, dealing with deadlines and all.

An Interesting application of the cognizance I acquired into real world domains boosted my confidence to bring about remarkable difference. While I relished the industrial experience, it was during the undergraduate mini project work, I realized and felt convinced that my true liking and aptitude lies in research. I worked on the project titled '**Movie Recommendation System**' under the supervision of Dr. Suresh Kumar Punia, the system was implemented to recommend another movie on the basis of experience of an end user of similar movies, and similar user's experience with different movies using Collaborative Filtering approach, Nearest Neighbour Machine Learning algorithm and Pearson's Correlation for the Correlation Matrix.

Passionate by nature and a problem solver, during the time of Covid-19 Pandemic in order to address the issue of Voting for elections in India I worked on a project titled '**Eth-ocracy: Ethereum Blockchain based Voting System**' under the guidance of Prof. Arvind Kumar. I developed a fully take home Voting system by which Voters could cast their votes from the comfort of their homes using, Web Technologies to render the portal and Ethereum Blockchain to implement secure and temper-free election. We later went on to present this project to assessing panel and my work was greatly appreciated by the professors and our peers alike with me receiving an A+ grade.

I strongly believe that contributing to the community and underprivileged is the duty of privileged ones and thus following my belief I became a volunteer in 'National Service Scheme', AIACTR. There, I was exposed to a variety of social service activities, including the Cleaning Campaign, weekend teaching classes for children living in impoverished and slum neighbourhoods, and family planning awareness campaigns. I got the opportunity to lead such drives on multiple occasions thus brushing up my Leadership and management skills. I

employed these Leadership and management skills to organize many events during PROKON-2019 our college's annual Techno- Cultural festival where I oversaw over thirty teams and led a group of eight individuals. In 2018, I was also the AI&R TEDx event Junior Marketing Executive and bore the responsibilities of all the Marketing, Sponsorship and digital promotion of the event. I am also in touch with the Gram Panchayat office of my native village and actively organises campaigns to educate the Farmers of about farming management and the latest agricultural technologies.

Pursuing a Master's Degree and then research was always a precondition for attaining my professional goals, but during the time of Covid-19 pandemic and nationwide lockdown I had to support my family financially and thus immediately following my graduation, I had to settle with a professional job. Since I was already placed in a reputed Multinational company 'Tata Consultancy Services Limited' during campus placement rounds in my college, I joined TCS right after my graduation and got the opportunity to work on several Frontend and Java Backend Web technologies. Since I already had a little experience of how professional world moves around during the internship work at Mekvahan, I had no trouble adjusting there. To keep up with my coworkers and the responsibilities I was given, I quickly mastered a wide variety of tools and technology.

Now after an year of professional work, I feel that this is the favorable time to get back onto the track to pursue my career in research. Keeping an eye on my long term goals, I want to pursue Master's studies in Computer Science and then Phd in the field of Machine Learning and Data Science and further my career in research and academics to contribute to the Data Science field and community. Though, there has been notable developments in the field of Machine Learning, Data Science and Artificial Intelligence but I personally feel that there is still a huge gap between demand and supply of talent in Industry. As per a report of NASSCOM, the talent demand-supply gap in Artificial Intelligence and Big Data Analytics is expected to grow from ~62,000 to ~1,40,000 over the next 3 years and one of the reasons for this gap in my perspective is the lack of specialized courses at undergraduate level in academics.

I firmly believe that master's programme in Informatics from Technical University of Munich will provide me the platform to work on and master various latest technologies. I would love to work with Prof. Dr. Daniel Cremers, Prof. Dr. Thomas Neumann, and particularly with Leibniz Prize winner Prof. Dr.-Ing. Gerd Hirzinger.

Thank you for giving me the chance to express myself through this letter of motivation, which outlines my sincere motivation for pursuing academic excellence. The information provided above provides a concise account of my life and goals, but a more comprehensive account would go beyond the scope of this declaration. I am very certain that studying at the prestigious Technical University of Munich will be a fantastic experience and that it is where the key to my future lies. Certainly, your esteemed Institution has drawn me in because of its illustrious faculty and the cutting-edge research being conducted in the field of my choice.