

# Statement of Purpose

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I will never hide my talents, if I am silent, I am forgotten. If I do not advance, I will fall back. If I walk away from my challenge today, my self-esteem will forever be scarred, and if I cease to grow even a little, I will become smaller. I reject the stationary position because it is always the beginning of the end. The above philosophy has played an important role in the shaping of my objectives and framing of my plans for the future.

Right from childhood, I have always been fascinated by the mysteries of science. I had an analytical mind and was very strong in mathematics. In my 10<sup>th</sup> (secondary school) and 12<sup>th</sup> (Higher Secondary school) examinations, I got gpa (grade point average) 5 on the scale of 5. I got a talent pool scholarship in SSC examination ( 10<sup>th</sup> class). At the end of my 12<sup>th</sup> class, I developed a particular fascination in programming. I started learning C-language then. I soon realized that the world of computers would be my ultimate goal.

The worthiness of my decision soon dawned upon me when I entered into my undergraduate program. I am currently in my final semester where I am pursuing my B.Tech in Computer Science and Engineering from Institute of Engineering & Management (IEM), Kolkata. From day one I was inspired by my professors who were engaging and passionate about what they were teaching. The subjects in the B.Tech course were of my taste. I enjoyed attending my lectures and would never miss any without any genuine reason. The papers of "Data Structure & Algorithm", "Programming in C++", "Design and Analysis of Algorithm" and "Database Management System (DBMS)" have been my favourites and the driving force behind me. So, I did not confine myself to the scope of my syllabus but read as much material as I could in the library. Then when I was in my fifth semester, I got a chance to do an internship in Web development. I have developed my interest in the world of web development by learning many frameworks & libraries and there I built a frontend of a web-site. I have also built some personal projects in web development. One of the projects developed by me is a tourist website where anyone can register, sign in into their account and see various kinds of tourist spots. Users can also give a rating and add a comment on the website and also upload images of different tourist sites. I have built this project using Html, Css, Javascript, Bootstrap, Nodejs and MongoDB. Apart from Web Development, I have also a keen interest in machine learning and deep learning. As I have loved mathematics since my childhood, I started exploring the field of machine learning and different types of models used in machine learning which is particularly based on mathematics and statistics. I got fascinated by acquiring the knowledge of different machine learning and deep learning models and applying them to some real world projects.

Furthermore, it has instilled a desire, in me, to delve more and more into the subject and increase my technical abilities to contribute towards innovative research.

In my final year of this undergraduate course I am an active member of a group of two students who are working to design a model of a "Facial and Speech Emotion Recognition In real time". In this project, we can detect the emotion of a human by just seeing his face or by listening to his speech. This project is a direct application of deep learning which is a part of Artificial Intelligence. Detecting emotions is one of the most important marketing strategies in today's world. You could personalize different things for an individual specifically to suit their interest. For this reason, I decided to do a project where I could detect a person's emotions just by their voice which will let us manage many AI related applications. Some examples could be including call centres to play music when one is angry on the call. Another could be a smart car slowing down when one is angry or fearful. As a result this type of application has much potential in the world that would benefit companies and also even safety to consumers.

I would be an ideal candidate for your university since I have been consistently performing well in my Bachelors course procuring a total cgpa of 8.97 ( till the seventh semester) that helped me secure the position of top 5-6% of students in my college. However, I am of the opinion that theoretical work alone is of little use unless it is accompanied by practical knowledge. I believe that I would be a suitable applicant for Research work in the university since I've always been inclined towards practical tasks and the everlasting quest to learn more. "Knowledge is power", says Bacon. "A wise man has great power and a man of knowledge increases strength". Knowledge is all-powerful and love of knowledge is a prerequisite for any success in life. If education means merely book knowledge or the passing of periodical examinations, then I am afraid I feel enthusiastic about it. Education should be a medium for the unfolding of one's inborn faculties, enabling him to use his mind, eyes, ears, and hands, as they should be used. This is the kind of education I would want, and one that I know your university will equip me with. Going through the brochure and website of "IIT, Kharagpur" I found that your M.Tech program in "Computer Science & Engineering" suited my needs perfectly. This decision was taken carefully as I found that a plethora of opportunities exist at "IIT, Kharagpur". The ongoing research at your university has drawn me towards it and I have been honestly impressed by the facilities available. I want to become a part of your university and hope to have a long and fruitful association with it. The rapid pace of advancement, which the world has embarked upon, can only be sustained if we have efficient and professional engineers. I would also love to contribute my bit towards it and hope that your esteemed university would provide me an opportunity to do so.

To conclude, I would like to state that if granted admission into your university I would perform to the best of my abilities and hope to acquire skills that will help me realize my dreams. I hope that you will find in me a deserving and creditable student for your renowned University.

