SOP Draft 1

### "You miss 100% of the shots you don't take" ~ Wayne Gretzky

We are living in the era of **Industrial Revolution 4.0**, where breakthroughs are being made everytime you blink your eye. Being conscious of the constant exponential developments in technology of the present time, I have always had a craving to learn about the advancements in technology and research in Machine Learning, Artificial Intelligence. My fascinations with the developments in this field have intruiged me to dwell on how we can use this technology to make the existing systems more effective and efficient. One of my greatest inspirations in this field was Google's **Deep Mind** where the **AI** taught itself to walk. Since Research and Data Science were always my passion, it deepened my aspirations towards this domain, and that deepend my urge to gain a strong understanding in **Mathametics** and **Statistics** to reinforce my foundation in the field and hence got me admitted to **Amity University, Kolkata** for a **three years bachelor's course** on **Statistics**. I felt that undergraduate study alone does not provide the specialized academic exposure essential to reach higher professional levels in the present-day technology driven industry. Hence, I intend to pursue my master’s from a university that offers me a course that can sharpen my acumen in research. Therefore, my resolution to pursue my Master’s degree in Data Science from **<YOUR UNIVERSITY>** seems the most logical extension of my academic career that would give me the desired push towards a research career and an opportunity to do well with the help of your dynamic curriculum and exceptional teaching faculty.

Being a tailored curriculum for bachelor's degree in Statistics, subjects like **fundamental of statistics, probability theory, sampling theory, linear models, statistical inference, non-parametric statistics, time series analysis, linear algebra, real analysis, numerical analysis, C programming and R programming** were also included to build a strong foundation in statistics, mathametics and machine learning. I have also worked on various projects that enhance my analytical and technical skills. For instance, I have created a **Shared Auto-Encoded Feature Representation for Image-to-Image Translation** and worked on **Exploring the Effect of Income an Education Disparity on Domestic Violence against Women : A Case Study from India**, using Machine Learning and Statistical methods. As a part of my final year thesis, I've been working on **Region-wise analysis of severity of COVID-19 infection in India**. **During my undergraduate study, I successfully completed an Internship** at **Ministry of Micro, Small, and Medium Enterprises under Government of India**, to understand the real-life operation of an industry. I have also undergone **several online courses** and took part in **several webinars** in the domain of **Machine Learning, Data Science, Artificial Intelligence and Computer Vision.**

**<PROFESSOR'S RESEARCH AND WHY I'M INTERESTED>**  
**<MY INTEREST IN THE UNIVERSITY CURRICULUM>**  
**<STATE THAT YOU HAD GERMAN IN YOUR CURRICULUM AND HOW IT WOULD HELP>**

In view of the foregoing, I firmly believe that **<YOUR UNIVERSITY>** will be an ideal place for me to pursue a Master's Programme to accomplish my dream as it offers academic excellence, esteemed and competent teaching faculty and an intensive curriculum. It will also guide my career as a research professional at an academic and research oriented organization. I would be delighted if I am considered and given an opportunity to be a student at your University. I look forward to a **Master's study in Data Science** at your university to strengthen my knowledge and expertise in the areas of my interests

Thanking you,  
Safalya Pal