Not long ago as I was judiciously penning down a list of what I considered my personal academic achievements, in a moment of vanity I looked up the stats for the citations I had under my name. For a few minutes, I felt pleased by the number that had come up as it certainly exceeded my expectations as an electrical undergraduate student. But a few minutes were all this feeling of contentment lasted, for the longer I stared the more I realized that that is all it was- just a number on a screen with no real influence on the world I was living in. As the daughter of a public prosecutor, I have grown up seeing people thanking my father for his services. I have seen very real lives transformed because he chose to use his skills to create a tangible impact. But my state-of-the-art results on multimodal emotional classification are yet to improve the life of anyone. It is not that academic literature doesn't translate to real-world applications; every breakthrough invention is made possible from years of painstaking research. Every good theoretical foundation eventually does find its way to implementation and to people's daily lives. It is this time for that eventuality to occur that I seek to reduce, for I believe today we do have the tools and the means to bring our ideas to fruition in our lifetimes. I don't possess my father's skills; sitting in front of a screen and typing lines of code is the skill I cherish the most. But I do believe those lines of code are just as capable of bringing about real change. I've been captivated by the world of computers ever since my 15-year-old self successfully printed "Hello World", and I believe the ripples created in this virtual world can still do more good than harm in our realities. My goal for pursuing a master's degree in computer science is thus simple: to bridge the gap between academia and application and to accomplish this in a way that can create a visible impact.

My undergraduate education equipped me with the sound technical foundation required to accomplish this task. I completed my Bachelor's in Instrumentation and Control Engineering from Netaji Subhas Institute (now University) of Technology, New Delhi. Though I would have preferred to major in computers, the great emphasis on research drove me to pursue my undergraduate here. Five years later, I know I made the right decision as I got the opportunity to work with some of the most prolific professors in the country on projects in the field of NLP that challenged me throughout. At the end of my second year, I started working on Speech Emotion Recognition and proposed a novel method for classifying emotions in a hierarchical manner using neural networks. The publication of this approach in an Elsevier journal encouraged me to further delve into NLP-related problems. In the following years, I developed frameworks for Automatic Text Summarization and Fake News Detection, both of which were also accepted in reputed journals, namely Knowledge-Based Systems and Expert Systems with Applications. This exposure to numerous ML techniques- from extractive unsupervised approaches to employing context-dependent language models for supervised classifications, has motivated me to use machine learning as the tool to engender the change I have envisioned. While these research ventures forced me to develop a strong background in algorithms, it was another project called "Her-Hygiene" that offered menstruation-related solutions which revealed the societal aspect of computer science to me. Developed as a part of the winning solution for the nationwide Smart

India Hackathon, its USP was connecting women in need of sanitary products in an emergency. Like most colleges in India, there were no provisions for sanitary products in campus; it was hence heartening to see girls being able to get the help they need through our application. The impact and potential of this project stayed with me long after and motivates me to pursue my goal. My undergraduate experience has thus been holistically enriching, as I was also able to explore my interests in public speaking and dancing. Although I have always been enthusiastic about academic pursuits, I have come to realize that my passion for them aligns even more strongly when I am able to de-stress by engaging in activities I truly love. Trying to solve world problems as a delegate in Model United Nations, or experiencing the thrill of a stage performance like a dancer were some of the ventures that helped me through the onerous journey of engineering and also laid the foundation for lifelong friendships. Debating in the morning, attending classes in the afternoon, practicing ballet till dinner, and then toiling on projects till daybreak thus encompassed my typical day in college. While I joined these teams purely for the happiness I got from being a part of them, the opportunity to lead them both in my final year trulu tested my leadership capabilities and brought about the perfect ending to this journey.

My first major industry experience was during my pre-final year internship at Amazon where I worked on a Java SpringBoot application service in AWS. The internship got me interested in the industry side of things, for every contribution I made was associated with large-scale implications. These demanding two months not only taught me the difference between a college project and an enterprise-level application, but also helped me develop my core programming skills. Wanting to further strengthen my CS fundamentals, I took up my current software engineering role at Wells Fargo soon after college ended. As of now, I've worked on developing SpringBoot and React applications from scratch, and the exposure to numerous technologies within quite a short time period has been an invaluable learning experience. It is also here in my professional experience that I observed a gap in the worlds of academia and industry. There have been numerous instances of innovative approaches to common problem statements being available in literature, but never really getting seriously implemented because they are seen as "experimental" instead of reliable solutions. Even something as simple as incorporating emotion recognition capabilities in chatbots to help escalate complaints in cases of customer dissatisfaction is met with hesitance, because there is a general reluctance to go the extra mile, much less to try something unconventional out of a research paper. So as grateful as I am for the steep learning curve I have had here, I'd like as a software engineer to get experimental approaches to see the light of the day in finished products, and the tools to accomplish this are what I hope for my graduate education to provide.

For my post graduation, I have two specific goals in mind that I'd like to work on. The problem statement for the first actually comes from Sheldon from The Big Bang Theory and his inability to pick up social cues. More than a character trait, it is an indication of Asperger's Syndrome- a form of Autism Spectrum Disorder that lacks a general awareness, especially in India. I'd thus

like to broaden my undergrad project on emotion recognition to recognise not only emotions from speech, but also other social cues. Quantifying social cues and coming up with a dataset would be challenging, but I aim to thoroughly develop this approach and then see it implemented in a suitable product, possibly extending it to process visual modalities as well. The second problem statement I'd like to tackle is real-time hate detection on social media platforms. Despite the abundance of literature in this area, the internet continues to remain a toxic place with children getting exposed to hateful comments so early on. While a plethora of solutions have been proposed, very few concentrate on the real-time aspect of this problem. This is where I'd like to build on my bachelors project on faster fake news detection, wherein we focussed on ensuring faster performance with fewer parameters without compromising on the accuracy. I believe the multimodal stacked ensemble framework used in this project could serve as the underlying architecture for at least nearly real-time hate speech detection, and is something I want to explore. The end goal is again to at the very least test this approach in a working prototype on live data from a social media platform. These are the projects I'd like to undertake, and I feel XYZ university would provide me with the best avenues to see them through, especially because your masters curriculum offers courses such as A, B and C which are not only immensely intriguing but also aligned with the latest industry trends and developments. I am particularly in the works pursued by Prof. A and B, and eagerly look forward to enriching my insights on these projects under them.

To conclude with as to why I believe I would be a good fit, I'd like to recount a recent incident. Sitting around in a circle of friends and chatting about life, I was asked what I considered the highest compliment I have received yet. At the cost of sounding conceited, I have received much praise all throughout my academic and professional life- I've been called an all-rounder, a diligent worker, and even a high-potential high-performance individual. But what I found myself answering was what my Physics professor had told my mother back in 11th standard- that there were many students who could score on an exam, but very few had as good of a work ethic as I did. That is something I have tried to live upto everyday since. I have never been someone whom things have come easily to, neither have I been gifted with any extraordinary talents; but what I have lacked in natural ability, I have made up for in discipline and diligence. I wasn't the most talented at school or the brightest, but I have often been ranked among the best. My undergraduation degree wasn't in computers, and managing to get a respectable GPA in my field of study alongwith pursuing CS subjects was taxing to say the least. But I learned what I could from the basics to the advanced on my own, and bagged a role as a software engineer because I persevered for my passion. I have never let the student in me fade away, and I will continue to be a sincere learner who values and recognizes the opportunities she's been given. I thus present my candidature to your university, where I not only hope to immerse myself among the brightest minds in this field, but also aim to prove my mettle and add value to your department.

Thanking You
Ridam Srivastava

Para 3- internships and job

Para 4 - specific goals

Para 5 - good student and conclusion

Gap - academia and application
SER -> Asperger's syndrome
Fake news detection -> preventing hate speech; google example
Wheel -> mercedes
Making the Internet a safer space
App- ltd to college
Exploring electrical, realized during college CS
Obstacles and good student - did CS on own
Highest compliment

Where option -> non-thesis
What got you interested, work ex, undergrad- projects, courses
Leadership roles and extracurriculars, social work
Interest in the field and this univ particularly- mention profs. working under them

Prospective student, interesting work - see
LORs