Rhythm Statement of Purpose

Growing up, I watched with fascination as technology redefined the world around me. I was always in awe of how computers were constantly evolving and transforming the society that we lived in. I seized my first opportunity to explore Computer Applications in high school. At age 13, the exhilaration I felt when my first Java program compiled successfully was what drove me to pursue a degree in Computer Science and Engineering. Every discovery I made fuelled my interest and I firmly believe that a Master's Degree from UC Irvine will enrich my technical knowledge whilst providing a global perspective and impacting my thought processes.

During my undergraduate studies, I put in extensive effort to work on my personal and professional development. My comprehensive curriculum helped to further my understanding of both fundamentals and important current issues through a blend of core technical subjects and application-oriented subjects. Keen to apply my knowledge, I interned at two emerging startups, building scalable websites with elements like chatbots and recommendation systems. This experience encouraged me to dig deeper into the computing world and bring about changes that would bridge the existing gaps in technology.

In my quest, I took up real-world problems and worked with Dr. Kumar to analyze and reduce source-code plagiarism in un-proctored examinations. As this led to my first paper publication, the interactions I had with active researchers from IIT Madras amazed me, and I was motivated to pursue research work. Having limited ML experience, I worked on Automated Speech Recognition for Indian regional languages at a research facility for Cloud Computing and Big Data (CCBD) as an R&D intern. Regional languages lack audio resources, so to reduce the amount of data required, we split continuous speech into syllables instead of the more widely used technique of breaking speech into phonemes and built customized ML models that work efficiently for them. This marked the beginning of my interest in this field and I took up courses on Artificial Intelligence, Machine Learning, and Deep Learning, and specialized in Algorithms and Computing Models. I grew from using online chat APIs in the 2nd semester to building a chatbot from scratch for the university website by the end of the 5th semester.

My work in CCBD allowed me to develop a deeper understanding of Indian languages, and I wanted to work towards revealing stronger relationships between them. Leveraging the knowledge that I had gained from interdisciplinary fields, I completed my final year thesis on 'Linguistic Classification using Instance-based Learning'. Along with picking up active research work, I enjoyed working as a Peer Teaching Assistant for a Data Science course. It involved course designing and taking additional classes to support juniors and peers to help bridge their learning gap. Coordinating with the Masters of Computer Applications department to organize an intensive Data hackathon for college students was another exceptional experience. Being the technical head gave me a chance to lead the progress and interact with renowned professors.

The most empowering experience of my life is when I interned as an Associate Software Engineer at LogMeIn Systems. Being challenged by the volume and velocity of data; I worked in different verticals in the Global Infrastructure Services team and designed and developed four tools that went into

production. Soon after, I joined Target as a Software Engineer, where I am building a customer-facing MLaaS solution that automates the grouping of unique items in the Target catalog. These opportunities put my skills to the test and made me realize my true potential. As an individual, my goal is to contribute to technology to make a social impact. After graduation, I continued my research independently and worked on simulating infection spread in communities by applying network dynamics in social behavior. Being new to Social Network Analysis and Queuing Theory, I took up external courses and arranged sessions with my undergraduate research advisors. We proposed a novel Social Infection Analysis Model analyzing and suggesting ways to contain the spread of COVID-19 in India.

Studying in the Silicon Valley of India, I dreamt of pursuing further studies in the global tech hub, California, to enhance my learning and fulfill my ambitions. I aspire to establish myself in an organization that values research output. A Master's degree from a reputed institution will enable me to delve into core concepts to fulfill my long-term goal of leading an innovation team using cutting-edge tools to build efficient and sustainable technology that is accessible to everyone. I believe that UC Irvine is the next step along this path, as it will equip me with the skills required to contribute meaningfully to the field of Computer Science.

With its top-class MS CS program, the department offers distinguished lecture series and broad courses on Neural Networks and Deep Learning, and Parallel and Distributed Computing. Having used the UCI ML Repository in the past, given the opportunity, I seek to develop my growth mindset at the Center for Machine Learning and Intelligent Systems. Even though I identify Artificial Intelligence and Machine learning as my core research areas, the development of emerging technologies and collaborations addressing societal issues are my top priority. I look forward to building a strong, mutual relationship with industry leaders to advance my research and technology aspirations through corporate partnerships. I am impressed by the profound research contributions to an array of computer science and interdisciplinary arenas through the Institute for Software Research and Secure Systems and Software Laboratory at UCI. With incredible resources and frequent opportunities, it is a platform to gain exposure by interacting with peers and renowned professors in an inclusive, collaborative, and diverse environment. The goals of the HPI Research Center in Machine Learning and Data Science resonate with mine, and I hope to be a part of their fellowship program. I aim to make this world a better place through responsible innovation in technology, and a world-class education from Donald Bren School will aid me in doing so.