

The rapidly evolving and progressive field of Computer Science has moved leaps and bounds in the past few decades, and currently there is a huge demand for well-educated and well-trained professionals in this field who can make use of technologies and contribute to future innovations. The entire future of business, industries, entertainment, and personal progress is based on this field, and a simple code or program can lead to the accomplishment of several tasks that would be difficult if performed manually. I am largely motivated by the fact that it is actually possible to literally change the world through computers, and I see huge potential in pursuing this in my future. I believe that a Masters in Computer Science will help me become up-to-date about the latest technologies and how to deploy these to achieve the maximum benefit of computers in our lives.

From the time that I have learnt about programming and its immense possibilities in diverse fields, I was fascinated with computers and this motivated me to pursue my undergraduate studies in Computer Science and Engineering at the University College of Engineering, Osmania University. During this period, I satiated my curiosity about programming by becoming adept in several programming languages such as C, C++, and Python. I also became familiar with related fields of computer science such as Artificial Intelligence, Machine Learning, and Data Science. In order to make my knowledge more practical-oriented, I worked with databases, data structures, and web programming, and gained extensive experience in these fields in the process.

Having acquired considerable theoretical and practical knowledge about various technologies used in the field of Computer Science, I was eager to apply them practically in real world projects. Initially, I took up a project on Material Gate Pass System, where I developed a real-time web service for managing information of material flow in the government organization, Bharat Dynamics Ltd (BDL). This work gave me an opportunity to familiarize myself with technologies such as HTML, CSS, Bootstrap, JavaScript, PHP, and SQL server. Next, I used Apache Spark for finding the average length of words per year on more than 200 GB of Google 1-gram data and processed more than 400 GB of Twitter data to analyze the number of tweets per hour. This project familiarized me with Apache Spark/PySpark, Python, JSON, and Linux.

After gaining information in handling data for various uses, I decided to take up projects where I could develop applications for specific purposes. Hence, I developed a web application from scratch that could help the user find people in and around the user's location interested in collaborating on projects. This website was hosted on Heroku, and I achieved proficiency in Django, Python, React, HTML5, CSS with Bootstrap 3, and MySQL through this project. From here, I moved on to developing an Android application for College Feed, where students could view details and posts of other students who were registered in the application. This served as a simple social networking application without images and I used MySQL to implement the database and PHP to send data from database to the application. I also developed two Android games, CrowsNest and SaveYourCar, using Construct2 tool and Intel XDK.

My undergraduate projects gave me immense exposure to technologies in data science, programming, and application development, and I was ready for a more technically challenging project for my final year work. Hence, I undertook a project on Privacy-Preserving Multi-Keyword Top-k Similarity Search Over Encrypted Data. With the widespread adoption of cloud computing to support a variety of big data applications for industries such as healthcare and scientific research, the problems of privacy concerns and hacking of information has become a major issue. Hence, it has become extremely important to implement data privacy preservation techniques to encrypt data before outsourcing it to

the cloud servers. This however reduces data utility and makes many traditional data analytic operators such as keyword-based top-k document retrieval obsolete. I implemented this project using technologies such as HTML, HTML-5, JavaScript, and CSS on the server Tomcat using the server language, J2EE and the database, MySQL5.5. This project provided an amalgamation of knowledge of several different domains and technologies, and helped me understand the importance of data privacy and data encryption procedures.

In order to understand the latest emerging technologies in futuristic fields such as Machine Learning, I decided to undertake an internship at Microsoft AEP (Verzeo Edutech Pvt Ltd) on Machine Learning Using Python and R, where I performed different regression and classification algorithms on large datasets to predict each and every model, calculated accuracy, and identified the best and worst model. My internship here taught me a lot about the type of data projects carried out in companies and I was able to develop proficiency in the technologies I used for this project.

My undergraduate projects and internship experiences have helped me acquire an overview of the field and develop a few important skills in the basic technologies commonly used. However, I know that my present knowledge is only the tip of the iceberg and there is yet a lot more to discover and learn in the field. Hence, my main objective to pursue Masters in Computer Science is to explore my interests and to develop a complete skill set in innovative technologies. After completing my postgraduate education, I would like to get a job as a Software Engineer and give my best to the company based on my knowledge and acquired skill set. Eventually, I would like to establish my own conglomerate, where I can develop a stronghold in every sector and work towards every area for benefiting the world in a positive way.

A postgraduate education in Computer Science from your University will serve as the perfect platform where I can nurture my passion for computers and achieve mastery in the subject. As I have considerable experience in Data Science and I strongly believe that this will be a dominant technology in the future, I want to greatly enhance my skill set in this area and learn about the latest happenings in Data Mining and Data Management procedures. I am confident that interactions with educationally diverse students and faculty at your premises will help me understand the professional trends in different parts of the world, which will in turn help me acquire a broader perspective for my future. I intend to achieve all this by undertaking several challenging research projects at your exceptional facilities, and I am sure that your work culture will help mould me into a capable and enlightened professional in the field of Computer Science.

Given my aptitude for computers and Data Science and my relevant work experience in these fields, I intend to make the best of your program for achieving an advanced level of theoretical and practical knowledge in the latest and industry-relevant technologies of Computer Science.