RESUME

NAME:- KRUTIKA BHALLA

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JOB OBJECTIVES

- I am interested in obtaining a development position, in a challenging environment that focuses on the applications of technology to enterprise knowledge management, distributed computing, e-Business, and system engineering and design.

SCHOLASTIC DETAILS

- Bachelor of Engineering in Information Technology
  Mumbai University, Mumbai
- College: K J Somaiya Institute of Engineering and Information Technology, Sion, Mumbai 400022
- Graduation: May, 2022

CAREER DEVELOPMENT

- I worked as the Jt. Publicity Head of The Students' Council of KJSIEIT. I was actively involved in the cultural activities and helped in organizing the cultural fest named Surge and sports fest named Score. Both of these were immensely successful.
- I was also a part of the Technical Fest of our college.

CORE COMPETENCIES

- Programming: Java, C Programming, Python, Flask, Laravel, MySQL, JavaScript, Jquery, HTML5 and CSS3
- Operating Systems: Windows, Mac, Linux

PROJECTS

- IT Lab Automation: Made an online portal for students to apply for Letter of Recommendation (LOR) by filling the form and once the letter is issued by a faculty member, the faculty incharge can log the entries.
- Crowd Counting Challenge: This project estimates the head count of the people in the vicinity.

PERSONAL VITAE

- Date Of Birth: 9th January, 2001
- Language Known : English, Hindi & Marathi
- Address : 101, Castle Rock, Bhakti Nagar, Near PVR Theatre, Sion, Mumbai - 400022

STATEMENT OF PURPOSE (SOP)

Name: Krutika Bhalla
Fall 2020

M.S. in Data Science
Arizona State University

It wouldn't be wrong to infer that the modern era is ruled by data—both raw and actionable, with our travel plans, educational initiatives, and shopping habits manipulated by this extremely potent entity. With every online and offline activity generating humongous amounts of insightful data, it is appropriate that professionals devise extremely targeted techniques for assimilating, analyzing, and amalgamating the insights. MS in Data Science is, therefore, an ideal coursework that would allow me to progress in this extremely niche domain besides deploying the concepts of engineering, computing, mathematics, and business for development of functional problem-solving skills. With a master's degree in Data Science, I can help diverse industries and sectors like healthcare, insurance, management, and banking in developing strategies that work. Lastly, with online streaming vendors like Netflix making use of customer data for creating customized recommendation engines, it is extremely fascinating to delve into the world of Data Science with Analytics and other technologies to rely on.

While I first talked about the target points leading to my course selection, what motivated me the most was my undergrad project selection! The moment I took up and started exploring more about predicting cyclones with Machine Learning at the helm, I slowly started realizing the true power of data. What piqued my interest further was how the data sets were treated before putting to use, concerning normalization and outlier removal. I started learning that every moment can be predicted, provided the available data sets are procured, improved upon, and used for deriving visuals and insights. Not just that, another motivator was the Kaggle website which did clear out my concepts regarding Data Science as a domain.

It would be extremely appropriate to talk more about my undergrad degree program, specifically in terms of domain selection, subjects relevant to my MS program, and the major motivators behind the same. To begin with, I started with a Bachelor's in Engineering with Information Technology as my domain of expertise. During the coursework, I invested a lot of time in subjects like Design and Analysis of Algorithms, Machine Learning, Database Systems, Object-Oriented System Development, Artificial Intelligence, Information Security, Digital Image Processing, and more. In addition to that, I also indulged myself quite actively towards learning more about Python, Java, Social media analytics, Mobile Computing, and Big Data Analytics. My inclination towards Data Science as the preferred domain of study comes from the fact that computing technologies have always intrigued me. Since my formative years, I was extremely optimistic regarding the deployment of these concepts concerning the Software Industry. Therefore, when I finally got an opportunity to unravel the applications and mysteries pertaining to this sector, I embraced Data Science with open arms and with an open mind.

It would be wrong to put every undergrad topic at par when I was slightly more inclined towards subjects like Big Data Analytics, Web Programming, Programming Languages and Design and Analysis of Data. Not just the theoretical aspect of these subjects, I even took a keen interest in

the practical applications of the same during the lab courses. The willingness to study and learn more about the unexplained helped me qualify as one of the best class performers.

The projects taken up by me do require a special mention and I would like to enlist the more relevant ones as a part of this discussion. The undergrad project made use of Machine Learning, Java, and Python as the associated technologies. During the project, I actively collected relevant data and put them to use, while deploying ML technologies on the way. This helped create a predictive engine of sorts, thereby assisting users with trend analysis and data visualization. In addition to that, I also took up projects related to online shopping web application using MEAN stack, CBIT Clubs using Polymer Web components, and Courier Service creation C language as the underlining concepts.

In terms of internship and industrial visiting experiences, I must include the time during the COVID pandemic and I didn't miss any opportunity I got for enhancing my skills. Many short internship programs helped me understand more about MEAN stack web development while making way for deeper insights in regard to Node JS, Angular JS, Mongo DB, Express JS, and other involved technologies. Other internships include Towards Industry 4.0, Fundamentals of Linux and Data Analytics and PLC programming with Python. I also participated in a Short one-week UiPath certification course which actually was a breakthrough. Apart from that, I also gained a lot of relevant experience by working under my fellow seniors on a number of projects.

I also worked on numerous projects including a Solar battery charger which operates on the principle of a charge control circuit will produce the constant voltage. The charging current passes to LM317 voltage regulator IC through the diode D1. The output voltage and current are regulated by adjusting the pin of LM317 voltage regulator IC. Battery is charged using the same current flowing through the circuit. Other projects include a Temperature Controlled Fan Using Arduino. In this Arduino based project, we were able to control DC fan speed according to the room temperature and show these parameter changes on a 16x2 LCD display. This was accomplished by the data communications between Arduino, LCD, DHT11 sensor Module and DC fan that is controlled by using PWM. PWM is a method by which we can control voltage. One other project that I worked on was Wearables for Elderly. This project is focused on the elderly people living alone. Hexiwear is a wearable wrist band which will be worn by the elderly all the time. It will be connected to a smartphone that will have an application that will monitor the sensors from Hexiwear and send this information using cloud computing to the cloud not only information, but alerts, warnings and emergency condition alarms. These information, alerts, alarms could be sent to Medical Doctors, Nurses, Caregivers, Emergency Services and Relatives.

I realized that pursuing MS in Data Science would come forth with a lot of rewarding opportunities especially when the career goals and industry-specific implementations are concerned. As every sector requires data visualization to draw an actionable insight and increase existing revenues, Data Science comes across as a highly relevant domain of study. For me, however, a Master's Degree in Data Science would help me realize the short-term goal of proper resource utilization pertaining to a specific domain. The long-term goal of working alongside a company of repute is also possible to achieve if I can fulfill the responsibilities and rigors of this international Data Science curriculum.

Besides academics, I would also like to talk about my extracurricular indulgence where I bagged prizes in singing and story writing competitions. The leadership aspect, however, needs to be discussed in detail as I was the elected Technical Admin for IEEE KJSIEIT during my undergrad degree program. These skills, however, were carried along as I successfully organized many online webinars and events. I was also an active part of the REDX AI CLUB which deals with problem statements and provide solutions for the same.

I firmly believe that if professionals are interested in enhancing their problem-solving skills and technical prowess, pursuing MS in Data Science is the best way forward. With Walmart collecting almost 2.5 petabytes of data on an hourly basis, it is quite right to infer that Big Data and the applications of Data Science are growing at a rapid rate. If given a chance to pursue Master's in Data Science from, I would be able to help businesses make profitable decisions in the future by putting the concepts of Big Data to use. With Data Analytics to work with, I will have the ability to manipulate the existing organizational parameters in some of the more prudent ways. Moreover, my academic skills, work experience, and other credentials would help me understand the world of Data Science in a much clearer manner. I would, therefore, be an asset to the university and would request you to give me an opportunity when it comes to pursuing Master’s in the preferred domain of study.

Draft of Final Group Discussion

Topic:- Make In India

On 15th August 2014, the honourable PM of India , Mr Narendra Modi from the ramparts of Red fort established the first step to a great campaign and that day you must have heard him say something like “Come in India , sell anywhere , but Mke In India”. MR Modi on that day , took a lion step towards the future of India and put the foundation stone of the Make In India campaign.
Make in India is a national level campaign that tends to focus on improvement of physical infrastructure and also digital network telecommunication to make India one of the global hubs among the other manufacturing countries in the world. It includes development of more than 20 plus industries like IT, textile, Tourism, Automobiles, Entertainment and any other industries under the shadow of Make in india campaign. The most pivotal aim of this campaign is to make India an investment hub with dedicated investment in the manufacturing industry and also focus on FDI.
Foreign Direct Investment(FDI):- The emergence of the manufacturing industries would automatically convert India into a hub for the fabrication of various commercial products; as a result, there would be a grand collection of the FDI, which, in turn, would strengthen the rupee against the domination of the American dollar.

Gross Domestic Product(GDP):- Make in India campaign is going to increase the share of manufacturing sector in gdp from current 15-16% to 25% till 2022 and creating 100 million jobs in this sector by 2022.
GDP counts "bads" as well as "goods." When an earthquake hits and requires rebuilding, GDP increases.

Investment:- With the help of Make in India drive, India is on a path of becoming the hub for hi-tech manufacturing as global giants such as GE, Siemens, HTC, Toshiba, and Boeing.

Job Opportunities:- One of the most crucial aspects of this campaign is to develop more job opportunities for the youth of India and now India’s population will get jobs in India itself.

This campaign will bridge the gap between rich and poor and there will be success for all and not just a part of the population. India will awake to life and now we will truly rise in all the domains and then India will be truly known as “ATMANIRBHAR BHARAT”.

JAI HIND!