**STATEMENT OF PURPOSE**

Education is the limitless treasure, the possession of which leads to a life of undisputed happiness and eternal prosperity; these words have been the intrinsic motivation for academics and a zest towards realizing a cherished dream. In the developing field of Engineering and Technology where each new day sees a spate of new concepts and applications and each passing day makes them obsolete, I wish to update and have the highest level of education and transform myself to achieve my dreams. Technology has had tremendous impact on the lives of people world over for ages. I intend to contribute with an indomitable spirit to these profound improvisations by earning my Masters in Computer Science from an institute of international repute.

However, I knew in order for me to understand modern circuitry and computer technology I would have to first understand fundamental sciences, which I gradually built up throughout my high school. I got a good opportunity to delve deep in Physics at school. Further, I took up Mathematics and Physics stream in my pre-university education as my majors and was honored with **scholarship** for excelling in the subjects. This token of appreciation acted as catalyst for my burning interest towards Science. After being ranked amongst the best of the best who attended the rigorous entrance exam, I secured admission in the prestigious **National Institute of Engineering, Mysore, Karnataka, India** to pursue my Bachelor’s Degree in Electronics and Communication. Consistent grades at college helped me to be among the top rankers. In the four years of undergraduate education, I gained comprehensive knowledge of the basic areas in Computer Organization and Architecture, Computer Networks, Microcontrollers, Microprocessors, Operating Systems, Embedded Systems, Network Security, C, C++, Data Structures and Algorithms. I enjoyed studying logic design as this helped me to understand how Boolean logic makes computer work. Microcontrollers and microprocessors subjects fascinated me to write C programs to make the hardware work. This piqued my interest to dive into programming and gain in-depth understanding of the various techniques involved in problem solving, mainly to cater to the services of the industries.

As rightly stated by Marva Collins “Success doesn’t come to you, you go to it”, in this context I believe that the best way to test the use of knowledge acquired in the classroom is by putting it into practice in real time applications. I believe that projects are the means through which one can conceptualize and significantly master the subject.

During my under-graduate studies, I started implementing the theoretical concepts into practicality with the guidance of the eminent professors and I have done number of projects related to computer science. The first being “Student Record Management”, which performs the operation of creating a record for a student, assigning a roll number and handling marks needed to pass in a particular subject as well as the total marks. This program was written in C++ following the concepts of object-oriented programming and data structures. Later I improved this application by developing GUI using Qt. I designed “Density Based Traffic Control System” and “Radio Frequency Identification (RFID) Based Students Attendance Management System” by applying all that I had acquired from the concepts of microcontrollers and C language which increased my hunger exponentially to gain knowledge in the field of programming. During my final year, I along with my team initiated a project entitled, “VoIP Softphone” that allows transfer of voice data packets over TCP/IP using python language and PJSIP library (open source multimedia communication library) via open SIP protocol. ‘Tic-tac-toe game’, ‘Web browser game’, ‘scrapping web content to get scores of cricket match’, ‘checking the profanity of a text file using Google API’ are few innovations that I devised exhibiting my creative caliber using Hyper Text Markup Language (HTML), Cascading Style Sheets (CSS), Bootstrap and Python. I also participated in programming competitions for improvising my leadership and team spirit skills.

To gain hands-on-experience on embedded systems, I attended a workshop conducted by **Robogenesis** renowned by Microsoft and Science Park, Korea where I learnt to set up a robotic arm with 3 degree of freedom and was fascinated to witness a microcontroller, along with its peripherals, control various systems. I also attended internship at **Bharat Sanchar Nigam Limited** (BSNL) for three semesters wherein I got practical exposure to telecom equipment and worked on Broadband and Optical Fibre technologies. This widened my knowledge in the areas of Digital Switching Systems, Digital Transmission Systems, IP, Mobile Communications, Networking and Cyber Security.

I learn by knowing, doing and from obstacles and unrehearsed tasks. I always try my best to foresee what the future is going to be and what I need to do in order to succeed in the future. I not only have a vision but I complement it with planning and hard work. I work hard sincerely to achieve good grades, which is very evident from my consistent grades. At the same time, I am not a student who concentrates on studies alone. Apart from having academic proficiency, I have participated actively in many extra-curricular activities like cultural, social service events and sports. I love sports and have won state bronze medal in skating during my school days and have given violin performance in auditorium and also won second prize in instrument competition.

I am presently working in **SAP Labs, Bengaluru, India**, as an IT technology associate consultant under DevOps team (SAAS). I am known here for being adaptable, quick learner, and hard worker. It was here I learnt Linux and shell scripting language and got hands-on-experience on tools like Capistrano for deployment of patches and Jenkins for automation testing. I worked on a project to get web server connection status by configuring zabbix to pull active connections data using shell scripting and command line method and have designed front end of training website. I have even published a research paper in Research Gate, which is about the encryption algorithm that we developed to secure the data.

URL:<https://www.researchgate.net/project/Three-way-encryption-algorithm-For-securing-user-data-on-cloud> .

I am a strong believer that success is a journey and not a destination. A successful person is one who can explore and expand his areas of learning. Global education will empower me to become a trained professional tackling international competition head on. Excellence in any sphere of life can be achieved through a strong resolve, hard work, perseverance and dedication. Yet lack of in-depth knowledge of the subject leaves the conceptual skills incomplete. It is in this context that I would like to pursue **Master’s Program in Computer Science** from the highly acclaimed **Northeastern University**. I understand the demand of Master’s Program and am geared up to take on the challenge. I would be honoured if I get an opportunity to work in Programming Languages Engineering under Lecturer, Benjamin Lerner.

A chance to study in a diverse campus environment with peers belonging to diverse cultures and backgrounds would groom my personality. Exposure to world class knowledge and studying under the expert guidance of elite faculty members, while having an opportunity to bag the teaching and Research Assistant-ships are some of the prime features that an aspirant like me would cherish.

I look up to the graduate studies at your esteemed institution as an opening to develop my skills and give a direction to my career and fulfill my core ambition. I shall strive in earnest to contribute and uphold the objectives of the department to the best of my ability and make a significant contribution to the university’s culture of excellence.

Sandesh Vishwanath