

## STATEMENT OF PURPOSE

*“The future belongs to those who believe in the beauty of their dreams.”*

— Eleanor Roosevelt

**Objective:** The above-mentioned excerpt has inspired me to fulfill my dreams and I aspire to fulfill them and reach the pinnacle of success in life. I currently work in Infosys Limited, as a Systems Engineer, and deeply aspire to utilize my potential further in the field of Information Technology sector. My goal is to pursue Master's in Computer Science and contribute gainfully to the software industry. My broad areas of interest are computer science and its revolutionary pioneering aspects like Programming, System Design and Architecture. My favorite subjects include Python, C++, Compilers and Database Management System.

**Academic Background:** A meritorious student right from my early years at school, I always scored high grades in Math and Science. In the pursuit of knowledge, I had always adopted an austere approach in order to attain a profound understanding of the subject at hand. This has aptly reflected in my consistently well-performing career, always in the top 3% among the fellow classmates and having received numerous awards. Throughout my career I have excelled in Mathematics and these are reflected in my marks. This profound knowledge of Mathematics has been helping me in shaping a career in the field of Computer Science. During my high school, being born and brought-up in a sea-port city of Visakhapatnam, I developed heavy fondness towards huge vessels and ships. This led me to go for my undergraduate studies in Naval Architecture & Marine Engineering (NAM). I pursued my Bachelor's in Technology majoring in NAM from the prestigious Andhra University, one of the leading universities in the country. I completed my graduation with distinction with a GPA of 8.62 (ranked 3 out of 60).

Though I chose the NAM as the major, I simultaneously developed interest in Computers & their evolution and realized their importance in today's progressive world during my first year of under-graduation. I recognized this when I was first introduced to C programming as one of the subjects in the course curriculum. I then recognized my dual interest in Computer Sciences gradually when I started to program puzzles and solve problem statements using the Math skills I carried from my childhood and the programming skills I was taught. I used to spend extra-hours to learn the database, SQL and HTML post classroom sessions at the library. I habituated to participating in the online coding platforms like HackerRank and HackerEarth. To enhance the knowledge, I believed the notion of teaching others would be a great step in solidifying my subject matter. With the same idea, in my 2<sup>nd</sup> year, some of my fellow classmates and I co-founded a student tutoring community 'WE-THE-TUTORS' in the campus. The objective is to guide and teach academically backward junior students. My areas of tutoring included C, Python and database management concepts. It was appreciated by then Principal of the University for the initiative. I continued to improve my Math, CS knowledge and Core knowledge of Ship Designing throughout till third year.

In my final year project, I prototyped a “Preliminary Design of 30,000 tons of Deadweight Container Vessel” that illustrates a ship model that can withstand higher pressure caused by ocean tidal waves. I had

a chance of using my Applied Mathematics skills to build and accomplish the model. I used various software tools like NAPA, Auto-CAD etc., to give it a visualization. This has intrigued me an interest towards the fact how beautifully these software work that make human intervention lesser and comfortable. I developed a small-scale reusable web application for university students that takes input parameters, metrics and predicts the efficiency of a given ship/container/vessel prototype in terms of percentage. This was also demonstrated as final supporting project alongside the main project. I received accolades by the Head of Department for the innovative approach. I developed an ambition to build software for various energy industries like Oil, Marine etc. I decided to pursue a career in Computer Science as a foundation to achieve this. The zeal towards the Computers have multi-folded after this project and I decided to pursue a career in the field of Software Engineering. I managed to secure a job at Infosys Ltd. as a Software Engineer in a campus job-fare.

My employment as a Systems Engineer at Infosys, a global fortune 500 company, has given me the so opportunity to evaluate and explore my interests. I found this to be a very good opportunity to gain real time work experience in the RES-ENERG (Resource-Energy) domain with primary focus on the technology of Python, Networking and SQL. After clearing several tests conducted in training period with score of 82%, I was prioritized to work for 2 client projects owned by “SingTel” - a telecommunication provider. During this period, I had great exposure to technology, client interaction, problem solution, team management etc. The project is an onshore-offshore operating model and it required me to interact closely with both the onsite as well as the client teams. This helped me gain deep insight into operations and client interactions. I have been a part of two major projects: “SingTel Book” was designed, built and developed in Azure cloud platform using Python and SQL, the other one “SingTel Network” is mainly focused on network engineering and configurations that I have to provision to SingTel frontend with which they provision the network for their customers.

Being good at database management, I voluntarily took up a dual role of both developer in Python Django and database administrator in Microsoft SQL in the first project and used networking concepts I learnt in the second project. I was awarded “Insta-Award” for being outstanding among 300 peers working for the same client. I received significant and highest rating among the peers in all performance reviews throughout the tenure. The outstanding performance fetched me a promotion as a Senior Systems Engineer within 18 months from the date of joining. The overall experience gave me enough exposure working in a global environment which instilled great love towards researching in the field.

Having worked for over **3** years now, I have gained good knowledge on the overall SDLC (Software Development Life Cycle), picked up a few additional skills like Data Modelling techniques and experienced with different flavors of UNIX.

Apart from my college curriculum and employment at Infosys, there have been various organizations that I have closely worked with which mainly focus on the development and well-being of the society. As a student I had enrolled myself with AIESEC which is the world’s largest youth run organization. To be a part of AIESEC, one must go through three rounds of interviews which test our communication skills, our love for society and willingness to work for the development of the society. Being a technology lover, I was a crucial member of ISTE (Indian Society of Technical Education). As part of these two bodies I have conducted and managed many events in the other regional university campuses. I have been a kind of person who believes in the Joy of Giving. As part of CSR (Corporate Social Responsibility) volunteer in Infosys, I spend 3 hours of time every fortnight to teach mathematics at an NGO Mahita. Mahita is an NGO for women where Muslim girls are given basic education free of cost. While working at Mahita I could see

how happy I can bring a smile to their faces just by giving a fraction of my time. I also worked with Dr. Reddy's foundation, an NGO that empowers under-privileged youth through sustainable livelihood.

I look forward to a career in research where I cannot only use my academic background to achieve my research goals but also make original contributions to the field of my interest in Energy and IT fields. I feel education with great course curriculum majoring in Computer Science would give the right research into these areas. I believe that graduate studies would provide me with the opportunities to attend advanced courses and would be the stepping-stone to my career in research. The University of Texas at Dallas suits my research interests because of its advanced academic curriculum and world-class research groups. I believe that it is the best environment for me to achieve my goals while gaining experience and exposure to a diverse student body and faculty. I believe that no other school provides students with the combination of culture, education and research environment, required for an overall personality development, as offered by your institution.

Summarizing all written above, attending your prestigious institution would give me an opportunity to receive high-level education under the guidance of prominent professors and excellent teachers. I would regard my admission to The University of Texas at Dallas not only as a great honor but also as a great responsibility and challenge to prove myself.

Regards

**Nikhil Seerapu**