Statement of Purpose

Name: Panthangi Nikitha

Applying for: Computer Science, Fall 2022

Computers hit nearly every industry and it has become almost impossible for many to conduct their business without technology. This inevitable need for technology brought a surge in the demand for Software professionals. I am a great admirer of technology and its endless possibilities, which made me try my hand at coding during my undergraduate course. I took up multiple Computer Science related courses and mastered programming languages like C Language, JAVA & PYTHON. With time, my fascination for computers grew and I worked on numerous coding based projects. The growing demand and the boundless zeal I have for computers steered me towards the decision of pursuing Computer Science at University of South Florida, Florida, United States.

I received my Bachelor’s degree in Electrical Engineering from CVR College of Engineering, one of the finest engineering colleges in the state. Even though I graduated as an Electrical Engineer, I always had an ardent passion for computers. When I was a sophomore, I studied extensively about computer programming and its applications. I channelized my theoretical knowledge of computers into practical application by participating in Smart India Hackathon, a social coding event in which computer programmers and other interested people work together to improve upon or build a new software program. Hackathon pumped me up and I developed more enthusiasm for computer programming, which led me to take up several coding based projects.

During my undergraduate course, I and my team had built a multi-purpose bag which we called Smart Bag. Its key features include a solar-powered charging port, a theft alert system backed with a GPS tracker, and an inbuilt safety system. RF-ID reader with microcontroller chip is embedded in the bag to indicate the user in case of any item missing or stolen. The safety of the user is taken into consideration and we included a safety button in the bag, which when pressed in panic conditions transfers the user’s location via SMS to the emergency contacts and police. I was solely responsible for the embedded coding of the RF-ID reader and GPS tracker installation. With the successful completion of this project, I have learnt to solve real-life problems through computer programming.

The solar energy applications in the Smart Bag intrigued me and I, along with a team worked on another solar-based project. We developed a Solar Power Bank, which is charged with solar energy. Along with coding, I designed the circuit for this project. As a programming head and circuit architect, I learnt how to blend coding with electronics. Working on a couple of solar-based projects gave me sound knowledge about renewable energy and its applications.

Brimming with confidence, I formed a team and developed an Automatic Power Factor Corrector using Capacitive Load Bank. It was designed to maintain the power factor equal to one to save money on utility bills, increase internal electrical system capacity and improve voltage drop at the point of use. I took complete responsibility for microcontroller programming and embedded programming. It wasn’t an easy project and we faced a ton of difficulties yet we successfully completed it. Our project also received special appreciation from our department.

I constantly upskill myself by learning more about Coding and Software. I acquired knowledge about HTML, CSS, LINUX, DOCKER, Junkins Ansible and Amazon Web Services. I completed the Azure administrative course and Microsoft Azure certified me as an Associative Administrator. I am an expert in Azure DevOps pipelines creations and management. I bagged 12 digital badges on Percipio digital platform.

Apart from academics, I actively participated in numerous extracurricular activities. In school, I was a member of the School Cabinet and head of St. Alphonsus Youth Leadership Society (SAYS). In my undergraduate course, I was the Vice President of the Electrcruise—technical club of our department. I also served as the Technical Head of Electrocruise for another year. I played a key role in the organization of Fuerza, our department fest. I love dramatics and have been a member of Rangmanch, a theatre club in our college. I performed many skits and street plays with my Rangmanch team.

My dedication towards computer programming earned me multiple offers from different Software companies. I chose to work as an Associate Software Engineer at ACS Solutions. I worked as a single DevOps resource for the project ‘Subitup’, playing the role of an Azure Administrator. I managed Infrastructure, Production, Cost, Security and Website hosting for ‘Subitup’. I also published a DevOps newsletter on Cloud Migration discussing different types of cloud migration, its tools and checklist. I have included new technologies: Drone CI/CD, DevSecOps, AI and MI in DevOps. Apart from work, I had fun being the RJ for lunchtime office radio.

With a never-ceasing passion for computer programming and an inspiring work experience at ACS Solutions, I have decided to advance my learning curve by pursuing Masters in Computer Science. After MS, I aspire to grow myself professionally by working as a Software Engineer at a reputed company. I have conducted thorough research on universities and found University of South Florida to be the best university that can help me prosper in my career. The sophisticated infrastructure and research facilities at University of South Florida will give me an opportunity to explore the depths of the Software field. I am confident that the expert faculty and comprehensive curriculum at your university will help me enhance my technical capabilities. I am looking forward to being a student of University of South Florida, contributing to the campus diversity and excelling in academia.