**Statement of Purpose**

For me, there is nothing more fascinating than the insanely immense and inexhaustive space. It is why I have been lured into the fields of astronomy and computer science where I want to pursue a Ph.D. in aerospace to search for life elsewhere in the universe and test how far beyond the moon we can venture.

I choose to apply at Space Telescope Science Institute due to its interesting projects and supportive faculty. I am eager to intern under this institute’s astronomers, scientists, and engineer’s staff and spend the summer working at its laboratory in Baltimore. I am a well-suited candidate for this program as I possess all the necessary skills from good python programming skills to familiarity with data science methods and statistical models needed to complete these projects. My experience as teaching assistant and Intern at startup has provided me with strong work experience and ethics which will further aid me in this, helping me tackle tasks from scientific writing to public outreach.

I hope to work on data of Mikulski Archive for Space Telescopes, helping find powerful insights through it. I’m excited about the all-round development this program offers from Public Outreach Projects to Scientific studies. These would equip me with the much-needed skills which will for aid me in my career goal of becoming a professor eventually. Coming from a small university in a third world country, this would be perfect opportunity for me to learn a lot more and gain more experience in astronomical engineering projects.

I have been involved with astronomy all my life. I have undertaken and won various astronomy quizzes and contests across the city, district, and state levels. I was one of the five selected, from a pool of thousand applicants, to represent the India nation in the 24th APRSAF space conference's water rocket competition, which was hosted by JAXA, Japan, and ISRO, India. It was challenging as it required one to have an understanding of aerodynamics and fluid dynamics in depth, as well as mastering the craft of building strong water rocket models, with the ability to launch them to the prescribed target. Even though few of those areas were completely new to me, I worked hard to meet the challenge as I made the most of this opportunity to learn and interact while competing against students from 13 other Asian pacific nations.

I have volunteered throughout my high school at the local planetarium, being present there for nearly every single eclipse and other rare Astro phenomena viewing parties, community outreach, science showcases, and educational programs. Usually being a science volunteer in most of these events, I have taught 100+ visiting school kids about introductory astronomy and various physics forces. Apart from these, I am involved in various activities at college. I am the domain head of Equinox, the space club where we have held various workshops and events often on campus, helping freshmen explore astronomy.

Finally, a circumstance that I feel has been crucial to my experience in the STEM field is being an underrepresented minority in higher education. Starting college as a first-generation student, I realized many of my peers from different backgrounds already had extensive exposure to the STEM field by conducting research and having mentors that are well established in STEM. However, this did not deter my passion for science. I kept up with research by reading journal articles on topics that interested me and listening to podcasts about research in computer science and astronomy. I continued to pursue this passion by conducting cancer research, becoming a supplemental instructor and teaching assistant, and mentoring incoming college students in STEM. Now, I am becoming the mentor I wished I had in high school to help me navigate higher education without having many people in my life to help me. Overall, these experiences inspire me to encourage other underrepresented people in higher education to continue pursuing their goals and to feel like they deserve the achievements they have garnered.