From ancient times the dark sky strewn with thousand of stars was a great source of mystery and inspiration for humankind. Technological and information development opened us an opportunity to go beyond the Earth. The next challenge that the humankind faces in the 21st century is to explore the Universe and probably find the new forms of life or another planet where we could live in the far future. Robotics as a new area of science emerged in the past decades will play one of the major roles in order to achieve these ambitious goals. This is primarily because robots can work in the extreme conditions where human could not survive and NASA has already been developing new projects involving them such as Robonaut, robot that helps astronauts with outside works. However accurate algorithms and properly written programs are required to manage the actions of these machines. As a computer scientist passionate about astronomy I believe that my skills will address the challenge.

Even though astronomy and space technology always fascinate me, until recent times I did not know how could I combine it with my major. When Professor Rizvi from my university suggested to apply for the Summer Research Program in Carnegie Mellon University I was very excited not only about the opportunity to spend my summer in one of the best Research centers in the world, but also by the fact that my professor believed that I deserve this position. I started to explore the website, and looking through the science posters and research papers of the past participants I discovered a lot of interesting topics such us analysing the student emotions or teleportation of mobile robots. There were no much work connected with the space technology and I immediately decided that this would be area of my specialization.

Being a sophomore year student I realized that doing research is very important especially when you go to Graduate School, which is definitely in my plans in the future. So far I had not started my research except the small research project in the Foundation Program where I discussed about the usage of magnetic levitation trains in Kazakhstan and in the process learned how to analyse big amount of data and write the research paper. First two years in the university I tried to focus on my academic studies as much as possible in order to get core skills and knowledge for research. Despite the fact that I am not a Robotics student I am quite good in physics, and also currently I am learning how to program Arduino microcontrollers taking the special course outside the university. Furthermore, as I said programming is essential to implement robots, therefore my continuous improvement in this direction will also assist in my research.

I can definitely identify myself as a hard-working person who is not afraid of long working hours. I always try to finish the work I started and I also learn new things quickly. In the last year I changed my major from Engineering to Computer Science and even though I had a little background in computing by studying hard I ended up among the top students in the department the last semester. I could not have achieved this without commitment to what I am doing and the desire to get new knowledge. Besides my academic life, I am very keen on sport and I am involved in a lot of extracurricular activities such as volunteering and charity. In my spare time I like to play the piano, read books of different genres and solve interesting puzzles.

In the Summer Research Program I will have a unique opportunity to collaborate with the leading researches and the brightest students all around the world with different background and culture. This will definitely contribute to my purpose of being the better member in team works and gain more self-confidence. I believe that my hard-working and time-management skills will help me to take challenges of the program. I believe that the program will be the first step in my future research career and the dream of discovering the mysteries of the Universe.