Please elaborate further on your educational and career goals (max 200 words): \*

As a current computer science major, my long-term goal is to obtain a PhD in the field and become a leading researcher and academic in the industry. I have always been fascinated by the vast and constantly evolving world of technology, and I am excited to continue learning and contributing to its development through advanced research and study.

Throughout my academic career, I have excelled in computer science courses and have had the opportunity to participate in various research projects and internships. These experiences have further solidified my desire to pursue a PhD and work at the forefront of technological advancement.

In addition to my passion for computer science, I also have a strong desire to give back to my community and make a positive impact. I believe that a career as a researcher and academic will allow me to do this by creating new technologies and solutions that can benefit society.

Overall, my educational and career goals are driven by a desire to learn, grow, and make a difference in the world through my work in the field of computer science. I am confident that obtaining a PhD will provide me with the necessary skills and knowledge to achieve these goals and make a significant contribution to the industry.

Past research experience or projects undertaken

As a computer science student, I have had the opportunity to participate in numerous research projects, gaining invaluable experience and expertise in the field. One project that stands out in particular is my study on neural machine translation (NMT) for the development of a highly efficient machine translation system for Kannada, a local language in India. Conducted at the Internet of Things Laboratory at PES University, the research aimed to enhance current translation methods and make them more accurate and efficient for various applications. The study involved the creation of an NMT system, as well as the optimization and fine-tuning of the model through experimentation and ongoing evaluation using the standard BLEU score.

In addition to this project, I also served as a laboratory assistant at a chemistry laboratory for a semester, where I was responsible for preparing and setting up lab equipment, maintaining a safe and organized workspace, assisting with research projects, and providing support to other lab personnel. I also managed the inventory and data storage, and led a workshop on Scilab and MATLAB software for freshman students.

Furthermore, I have actively participated in a range of hackathons (8+ in past 6 months) and coding competitions, using my skills and knowledge to solve real-world problems. These experiences have greatly improved my problem-solving and teamwork skills, and have given me a deeper understanding of the challenges and opportunities in computer science.

Overall, my research experiences have provided me with a strong foundation in the principles and practices of computer science, and have ignited a fierce curiosity and passion for exploring new ideas and technologies. I am excited to continue my studies and build upon this foundation as I pursue a PhD in the field.

As a computer science student, I have had the opportunity to participate in a number of research projects and gain valuable experience in the field. One of the projects that I am particularly proud of was a study on neural machine translation (NMT) for building an efficient machine translation for the Kannada, an indigenous local language (Conducted at Internet of Things Laboratory, PES University). The research aims to improve the current translation methods and make them more accurate and efficient for use in various applications. The study will involve the development of a NMT system while fine-tuning and optimizing it through experimentation and constant evaluation of the model's performance using standard BLEU score.

Prior to this, I was a laboratory assistant at Chemistry laboratory for a semester under science department. I worked on preparing and setting up lab equipment, maintaining a safe and organized laboratory, assisting with research projects and providing support to other lab personnel. I looked after the inventory and data storage too. Held a workshop to freshman on Scilab and MATLAB software.

In addition to these projects, I have also participated in a number of hackathons (8+ in past 6 months) and coding competitions where I have had the opportunity to apply my skills and knowledge to solve real-world problems. These experiences have helped me to hone my skills in problem-solving and teamwork, and have given me a deeper understanding of the challenges and opportunities in the field of computer science.

Overall, my research experiences have given me a strong foundation in the principles and practices of computer science, and have sparked a deep curiosity and passion for exploring new ideas and technologies. I am excited to continue my studies and build upon this foundation as I pursue a PhD in the field.

Laboratory skills / experience

Your place in LIGO Instrument science (100+100 words max)

Please mention (max) five LIGO science topics or projects that you are most interested in pursuing. (total ~100 words)

2) What makes you an appropriate candidate for the SURF program and why do you think you are a good fit? (max five points, total ~100 words)

There are several reasons why I believe I would be a good candidate for the research summer program:

1. I have a strong academic background in Computer science, with relevant coursework and experience. This has given me a solid foundation in the concepts and skills necessary for conducting research.

2. I am highly motivated and have a strong work ethic. I am always eager to learn and take on new challenges, and I am confident that I would be able to make the most of the research opportunities offered by the summer program.

3. I am a good communicator and enjoy working in a collaborative environment. I believe that effective communication and teamwork are crucial for successful research, and I am comfortable discussing my ideas with others and working as part of a team.

4. I am flexible and adaptable, and am able to handle multiple tasks and deadlines effectively. I believe that these skills would be valuable in a research setting, where there is often a need to juggle multiple tasks and meet tight deadlines.

5. I have a strong interest in physics, and am excited to have the opportunity to learn from and work with experts in the field. I believe that this passion and enthusiasm would make me a valuable addition to the research team.

To help you prepare this, you may want to browse these websites, and links therein:  
  
<https://www.ligo.caltech.edu/page/scientists>  
<https://labcit.ligo.caltech.edu/groups/astrophysics-group/research.shtml>  
<http://www.tapir.caltech.edu/research>  
<http://ligo.org/science.php>  
<https://labcit.ligo.caltech.edu/LIGO_web/students/SURF/resources>  
<https://labcit.ligo.caltech.edu/LIGO_web/students/SURF/overview>  
<https://labcit.ligo.caltech.edu/LIGO_web/students/SURF/projects>

Publish, awards and honors, if any