1. Why are you interested in attending CSSI? (150 word max limit)

I am interested in attending CSSI because my focus for my career is in Computer Science and Cyber Security. Since the age of fourteen my dream job has been to work at Google. My skills have improved over the years. I now have 2 internships: one at Jeffco and one at Red Rocks Community College. My friends and I are also starting to work on a Machine Learning Program to predict stock market prices using the TensorFlow API. Overall, my personality, passion, and inspiration has been focused on Google and I am willing to learn nearly anything to work at Google. Google’s mission to organize the world's information and make it universally accessible and useful to everyone is a mission I would like to be a part of.

2. How were you first introduced to computer science? (150 word max limit)

Ever since I got my PS2, I have been fascinated with technology. I was just 7, and seeing what a small little box could do was inspiring. From that moment, I knew what field I wanted to go into: Computer Science. I started to understand how these machines worked, which drove my fascination and curiosity further. I slowly started to be able to comprehend about how Networking, Comments, Motherboards, Hard Drives, Coding, and AI work. In fact, there is so much I still don’t know. The progress I have made in 8-9 years is a lot from knowing nothing. From using a computer to now making my own programs and setting up my personal cloud server has taught me a lot. In the future, I hope to be a software developer in machine learning, so humanity can advance technology further than ever before.

3. Problem solving and analytical thinking are important skills for a successful computer scientist. Please share an example demonstrating a time you used your problem solving skills to overcome a challenge or obstacle. This can be in relation to a project, extracurricular activity, work, etc. (200 word max limit)

I have faced many challenges throughout my life. However, the one challenge that took some serious problem solving for me was how to overcome OCD at the early age of 4. What seemed to be a curse at an early age became my greatest strength because I learned step-by-step ways of overcoming my challenges and obsessions. I learned these problem-solving skills from a very well-known child behavior therapist who taught me to identify the problem, find the solution, and use a step-by-step process to eliminate the urges to repeat things like turning on and off the lights, walking through doorways and stepping over lines to name a few. Today, I have learned to train my brain to crush the urge to repeat. This experience has made me stronger because when I am faced with a challenge, I use the problem-solving skills I learned at an early age which are; identify the problem, understand the goal, look at all the possible solutions, evaluate the options, review my notes, monitor and evaluate my progress, and change the course of my action if needed. I have applied these steps in many areas of my life to be successful.

4. How does YouTube work? Pick one feature/thing you can do on YouTube and describe how you think it works behind the scenes -- both on the user's device and at Google. Talk us through your thought process on how this feature works from a technical perspective. Think about what needs to happen for someone to use this feature and explain step by step the process (e.g. searching for a video). (200 word max limit)

When you search for a video on YouTube you send your query request in the YouTube index/database. YouTube will then show you a list of top related videos based off your query request it will rank each video in your results based on different factors, such as likes, views, subscribers, average time watched by each user, title, thumbnails, date uploaded and subscribers. It will then use those variables to rank each video, like how a Google search works, but google takes in account different variables. Each video has a unique static URL when videos are uploaded and when you click a video it is linked to a database and that database will return the correct URL. Then the video will start to play. I also believe machine learning based off user’s history will improve the search feature exponentially in a way when a user searches for a video, the results will be tailored towards their preferences. This is how I believe the “recommend for you” feature works.

5. Please give us one example of how you have exhibited leadership. Explain how you were influential, what you were trying to achieve and the impact you had as a result. This need not be demonstrated through a formal or traditional leadership role. Think broadly and examine the ways you are having an effect on the members of your school or your broader community. (150 word max limit. This example might overlap with question #3 - which is fine! - so please focus on leadership skills for this response.)

Leadership isn’t always about being first or winning. It is about helping others achieve more because you were part of a team. As an example, when I wrested my freshmen year at my high school. I knew that I probably wouldn’t have a winning season when I joined the team because I never had wrestled before, but I thought this would be a great opportunity to try something different, meet new people and contribute to the team in some way. I never won a match or made it to the second round, but I kept a positive attitude, tried my best and never missed a practice. At the end of the year, the team and coach awarded me with “The Coaches Leadership Award.”

6. Part of the consideration for receiving the Generation Google Scholarship is financial need. Please describe your financial need for this scholarship and what it would enable you to accomplish in your academic career. (200 word max limit)

If I receive the Generation Google Scholarship, it will enable me to meet my goals sooner rather than later. I can’t wait to go to college and receive $10,000 to achieve my hopes and dreams. My college education will be life-changing. I want to work at Google when I get out of college and receiving $10,000 will help me stay out of debt by paying for nearly one-third of my schooling. I have been accepted to University of Colorado, Denver and have met with the director the computer science program in the engineering department. The engineering program will take me five years to complete. I will get my BSCS in their computer engineering program. I will be paying for my education on my own. I am financially responsible and have chosen to live at home and go to school. My desire is to graduate debt-free. This $10,000 scholarship would greatly relieve the stress of having to find financial aid opportunities. Without this financial stress, I will focus on my BSCS degree to an extent that I would be able to benefit Google greatly upon my graduation. Software development is not just a job for me; it is a passion!