Ever since I visited my mother's research lab in fourth grade, I have been fascinated by math and science. As I grew older, my passion for logical problem-solving quickly manifested itself in my love for logic puzzles and strategy board games. I also led my school's Math Team throughout middle and high school, eventually winning first place in [redacted] regional and statewide Math [redacted] competitions in [redacted]. In addition, I took the most advanced science courses my school would offer, including AP Environmental Science, AP Chemistry, and AP Physics.

Despite my interest in these fields, however, the area of STEM that I love the most is engineering and technology. I first discovered my passion for computer science when I participated in the Girls Who Code Summer Immersion Program at Microsoft [redacted]. Throughout the seven-week program, I learned that coding could empower people to create nearly anything imaginable. When that exhilarating summer came to an end, I quickly started expanding my programming knowledge on my own by doing practice online, building projects in Python, and attending programming competitions with friends. During the school year, I also self-studied the entire AP Computer Science curriculum and earned a 5 on the AP Computer Science A Exam -- the highest possible score. Last summer, I had the opportunity to apply my coding skills by doing a software development internship at [redacted], where I built new features to improve site usability that went live on the company's international websites. This year, I am taking a course at my school called "[redacted]" in which I am working in a team with other students to design and create a mobile scavenger hunt application from scratch.

After spending so much time around technology, I was also curious to explore its social impacts. Last year, I studied and wrote a research paper about the effects of technology on the human brain. I found that the widespread usage of personalized technology devices has many benefits and drawbacks: it provides social advantages by providing interconnectivity and quick access to information, but if not used responsibly, it may also cause distracted thinking and information overload. In my free time, I did research by reading articles from Techcrunch, The Verge, and Huffpost Science and Tech, which allowed me to stay up-to-date on the latest pieces of technology and current trends.

In addition to expanding my technical knowledge individually, I was also interested in spreading my passion to others. Three years ago, I co-founded the [redacted] [local] Girls Who Code Club with [redacted] female friends, in response to realizing that most of the STEM clubs and classes at our school were heavily male-dominated. As president of the club, I teach weekly coding lessons to [redacted] high school girls and provide one-on-one assistance to those who need help. Our club has now helped break down the gender stereotypes around coding at our school, and it has been extremely gratifying for me to watch others fall in love with something I enjoy so much. Since our club was founded, the number of girls enrolled in computer science courses at our school has increased significantly from only a handful to almost 50 percent.

As a huge STEM enthusiast, one of the main reasons I want to participate in the National Youth Science Camp this summer is to meet other like-minded peers from across the nation and form friendships that will last long after the camp is over. By meeting other young scientists from a wide variety of different backgrounds, I hope to expand my perspective and stretch my ways of thinking. In addition, the lectures and seminars with guest scientists will give me the opportunity to learn from professionals and discuss some of the current research and broader issues facing the science community today. As someone who plans to do STEM research in college, being exposed to a wide variety of scientific work will allow me to explore new areas I have not tried out before. For example, some of the areas I am interested in

exploring further include artificial intelligence, neuroscience, and biotechnology. It would be an honor and a privilege to be able to explore these exciting areas over the summer with distinguished scientists from around the nation. In addition, one of the hallmarks of the National Youth Science Camp is that it allows recent high school graduates to develop their leadership and interpersonal skills in an outdoor setting. As a [redacted] native from the Evergreen State, I greatly enjoy hiking, camping, and exploring in the great outdoors, and I would be excited to share this experience with others. Through the outdoor activities offered at the National Youth Science Camp, I hope to develop a closer connection to nature, try new things in a fun setting, and form close friendships with the students I meet.

As an incoming college student who is planning to study fields in STEM, I believe that scientists and engineers have a social responsibility to do work for the betterment of both humanity and the earth. Too often, new technologies are created at the expense of draining limited resources, such as the mining of precious metals that are required to mass-produce smartphones. In addition, access to new scientific and technological innovations are often solely reserved for the upper class people who can afford it, rather than being easily accessible to all. For example, I believe it is extremely unjust that the price of an EpiPen has shot up from $57 in 2007 to over $500 today. Lastly, I think the scientific community should take more steps to prevent the monopolization and monetization of research materials, such as tissues for medical research. For example, during the late 20th century, the HeLa cells used in many medical breakthroughs were commodified and sold by scientists for decades before the family of Henrietta Lacks even discovered that her cells were still alive. I believe that in order to prevent such unethical practices in the future, researchers and creators should always consider how their specific work fits into the larger picture of society. In the new age of modern scientific knowledge and technology, scientists should always consider the moral, environmental, and political implications of their work. When scientists understand the needs of society as a whole, they can truly contribute to the betterment of the world.