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I have always loved the environment. I love the outdoors, animals, and just being outside in general. Hiking, rafting, rock climbing, and skiing are just a few of the outdoor activities that enjoy. I even started an environmental club at my school, where we do activities like trash clean ups and projects like getting hydroponic gardens installed in the school. I also love science and engineering. I love to learn, and have taken double sciences almost every year in high school, and have taken engineering and programming classes to foster my love for STEM. I am also part of my school's robotics club. I want to make a difference in the world, and help to protect the environment that I love so much by using science, technology, engineering, and math. This combination of passion for the earth and engineering has led me to want to pursue environmental and civil engineering, along with sustainable architecture. With those skills I hope to design cities that are better for the environment and more desirable to people to live in. This would reduce habitat loss due to urban sprawl and reduce carbon emissions from cars that transport us around the suburbs.

I want to protect the diverse world we call home by designing clean, green cities that people want to live in. City-dwellers use less resources than those who live in suburbs, but culture today is more apt to move to the suburbs. These suburbs need cars for transport, more roads, water lines, power lines, and housing materials. By designing cities that are eco-friendly, they will be even less resource dependent. An example is smart design of buildings to reduce the urban heat island effect. When there are large concentrations of black and grey buildings, and more specifically roofs, there tends to be a heating effect. This effect is a positive feedback loop requiring more and more natural resources to keep air conditioners working. With green building design, the dirty, hot, noisy cities we imagine of a city can be turned into a green oasis. For example, if buildings instead use green roofs, the plants will act as a carbon sink, cool the buildings by reflecting the sun's rays, and provide an outdoor recreation area for occupants to enjoy. By utilizing window placement to avoid the summer sun and capture the heat from the winter sun, the buildings can reduce heating and cooling costs. If the buildings are equipped with water reclamation systems, it can use rainwater throughout the buildings, and then safely return it to the environment, reducing the need for additional water draw. By installing solar panels and wind turbines on the building, the buildings can generate all of their own power, becoming an energy neutral or even an energy plus source if it generates more than is needed by the building. So you see, by using technology, cities can be designed with the earth in mind, provide a healthier living alternative for humans, and reduce environmental problems.