

Seth, Chavez  
12th Grade  
La Cueva High School  
New Mexico

New Mexico has a long standing culture with deep roots and provides me with a home, food, and traditions dear to me. My family has lived here for generations and instilled in me the values of perseverance, curiosity, and integrity. These values have shaped my identity and drive for action.

In the past decade New Mexico has experienced the worst drought and four of the hottest years in state history. In a Bill Nye the Science Guy episode, Nye declared, "Climate change is happening, and humans are causing it." Growing up in a rural, arid climate heavily reliant on Colorado snowpack, I have personally witnessed the tangible impacts of global warming. Throughout elementary and middle school we took field trips to the Rio Grande and it pained me to see our rivers turning into dirt and our acequias running dry. This realization sparked our eighth grade class into action, becoming environmental stewards. We implemented our plan to address the problems by planting native trees which sequestered carbon and enriched our neighborhood community. Further investigation about trees sparked my curiosity about advanced technologies for afforestation, especially drones designed to plant trees after forest fires.

In my high school AP Seminar project, I delved deeper into environmental issues and discovered a profound interest in engineering solutions. Inspired by the high-tech solutions for afforestation, I researched advancements in agrivoltaic technologies on the improvement of soil biodiversity. The technical skills I have learned in Computer-Aided Design and Engineering classes motivate me to address problems I am passionate about. My enthusiasm for research and development provides me with a unique skill set to develop solutions that align with my core values to address environmental injustices.

Seeing the world as I do, has had a profound impact on my life. I learn, think, and interact with the world differently; developing my own passions has shown me what I want to do with my life. As engineers, we have the privilege to pay it back by creating solutions that address real-world problems. While doctors, lawyers, and teachers play crucial roles, engineering forms the foundation for everything we make and has the largest impact on our daily lives. My journey is rooted in a sense of gratitude for the opportunities I've been granted. This compels me to use my skills to help others find their paths. Engineering becomes the medium through which I can pay it forward, creating positive change in the lives of those who may face challenges.

My family has shown me the importance of the environment and while it is easy to become hopeless, these experiences have given me a profound sense of purpose. My academic journey is fueled by curiosity and a drive to learn the unknown. I want to use my understanding of engineering to address environmental problems, to be at the forefront of sustainable technology, to innovate and dare to change the world.