



Jia Hao (Joe) Wang
Product Development Shop Fellow

Product development, devices and tools

"I applied for the Siemens Foundation-PATH Fellowship because I am passionate about engineering and wish to employ that interest to serve a greater cause. I wish to further my skills in engineering and make a positive impact on the global community."

Joe is pursuing his Bachelor of Science degree in Mechanical Engineering at The University of Washington, expecting to graduate in 2022.

After learning that he could build towers taller than his own height when he was in preschool, Joe became interested in engineering. As he got older, he wondered at the marvels that make the world around us function and realized that everything we touch and use is so much bigger than we are and that the impacts we have on the world can go far beyond our direct reach when engineering is utilized. The intimacy of parts in unison and the elegance of how they interact and function is what specifically drew him to mechanical engineering. Through engineering, Joe feels we can create something that can touch the lives of people across the globe and contribute to the progress of humanity.

One of the people who has most inspired Joe on his academic journey was a classmate. Though he wasn't top of their class, and didn't attend an Ivy League school, this classmate was accepted into a prestigious college and is now studying what he loves. He didn't inspire Joe based on his academic performance or ambition, but with his character. Despite having been separated from his sibling at a young age, living with abusive stepparents, associating with other troubled teens and more, this young man managed to persevere in a situation that would have ruined other lives. Having seen this example of his classmate's ability to overcome difficult life experiences, Joe feels he came to understand his own privileges and strengths and was inspired to make the most of the opportunities he had been given – and to never let circumstance or difficulty be an excuse for giving up.

As a member of Engineers Without Borders, Joe has become more familiar with the operations of NGOs and other organizations such as Kilowatts for Humanity and how they work to implement positive change in the world. In addition, the engineering design activities, fabrication experiences, and teamwork aspect helped him grow the technical abilities he will apply in the work he is doing with PATH.

Joe feels the greatest challenge for his generation will be pollution and climate change and its impact on those people who live in underserved areas and are already vulnerable to geographic or climate-related changes. This group will experience a direct impact to their quality of life as opposed to people who have more resources and may consider things like rising air conditioning bills to be their most severe consequence of climate change.

By working as a PATH fellow, Joe hopes to hone the skills and practices required to be a better engineer – especially regarding testing and documentation practices currently in use in the industry as well as how engineering can be integrated into global health. He hopes to implement the principles and experiences learned via his fellowship to better understand the applications of engineering and build real-world connections to the very important, but oftentimes unmentioned, applications of engineering to the world at large.