**How will opportunities at Purdue support your interests, both in and out of the classroom? (100 words)**

Indonesia is reliant on water desalination as its clean-water source. However, during my internship, I learned that it was powered by the grid instead of sustainable sources. Purdue has renewable energy initiatives that develop a wave-energy convertor for reverse osmosis and I intend to understand this technology to enable Indonesia’s first large-scale wave-powered desalination process. Moreover, I consider myself a budding animal activist and the Cause For Paws club would enable my next-generation solar-powered automatic animal-feeder that better suits rescued animals in shelters. Understanding animal needs would enable me to make more suitable products to improve their quality of life.

**Briefly discuss your reasons for pursuing the major you have selected. (100 words)**

My realization of the imminent threat of global warming started from a school charity event dedicated to the Pakistan floods. This ignited my interest in sustainable energy as it could be the solution to mitigate rising sea levels. As I explored this topic further for my Engineering project, I was exposed to Carnot cycle-thermodynamics and energy conversion efficiency of a hydroelectric dam. The possibility of being able to achieve energy conversion beyond that of a Carnot cycle simply excites me and becoming a Mechanical Engineering is my best option in order to be able to design efficient sustainable energy devices.