**Why do you want to study your chosen major specifically at Georgia Tech? (300 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 will be the solution to mitigate rising sea levels. As I explored further, I was introduced to a thermodynamics concept called the Carnot cycle and the energy conversion efficiency of a hydroelectric dam. The possibility of being able to achieve energy conversion beyond that of a Carnot cycle excites me. Pursuing Mechanical Engineering at Georgia Tech (GATech) would enable me to be at the forefront of designing and building high efficiency sustainable energy technology devices.

My dream to one day achieve a 100% efficient sustainable energy device has led me to the research on harnessing geothermal energy. Professor Dai’s extensive research into shallow and deep geothermal energy has helped me realize its potential and led a path on how to make it more feasible. His lab is unique to GATech due to the unprecedented tools that can operate under elevated temperature pressure and he uses these to simulate the conditions needed for geothermal experiments. The opportunity to work with him will allow me to develop the necessary framework and experimental experiences needed to test and develop different types of geothermal energy technology. With Indonesia being the world’s second largest geothermal producer, I intend to understand how to build and operate devices for less wasteful energy transfer. This would enable me to contribute to the development in the technology of the numerous existing power plants.

GATech has leadership opportunities for climate solutions and it would be a great way for me to inspire people to make a positive change to the environment. With sustainability initiatives such as campus solar energy where solar panels are implemented on the roofs of the buildings, it approaches Atlanta’s ultimate goal of using 100% clean energy. It aligns with my dream hence why I want to study at GATech.