**Why are you interested in the major you indicated as your first-choice major? (300 words)**

Heat waves and warmer oceans are telltale signs of global warming. This is one of the reasons for the increasing floods in Indonesia, Pakistan, and other tropical countries. It made me realize the imminent threat of global warming and ignited my yearning to solve global warming using sustainable energy. However, its inefficiency at the moment means that there is still work to do to develop more viable alternatives.

I explored improving sustainable energy technologies with the hopes of making its mass adoption a reality. During my research on energy efficiency, I was introduced to thermodynamics's Carnot Cycle and energy storage systems. The possibility of achieving an ideal energy conversion and being able to store it excites me—it means global usage of sustainable energy is possible.

Whilst looking into new methods of sourcing renewable energy, I discovered tidal turbines. With Indonesia being home to 13,000 islands, there is a huge potential to use tidal turbines as an alternative energy source in remote islands of Indonesia. This would contribute to reducing Indonesia’s pollution level. Although there are some turbines currently functioning, they provide small amounts of energy because their fluid mechanics are still in early stages. Understanding dynamic fluids could lead to new designs which harness more kinetic energy, therefore, generating more electricity. This requires a good understanding of what occurs underwater and designing skills to modify the blueprints.

For me to be able to do this, majoring in Mechanical Engineering is the best course of action. Pursuing Mechanical Engineering at UT-Austin would enable me to be at the forefront of designing and building highly efficient and technologically advanced devices that use sustainable energy.

Hi Abian,

Thank you for your essay! You answer the what and how of the essay prompt, but you still need the why. The main reason you are pursuing mechanical engineering is to provide sustainable energy to Indonesian islands, and you can emphasize this more by elaborating on this reason. Why is this a problem? Do all Indonesians get the same access to energy? Why or why not? What will happen if we don’t convert to sustainable energy? You mentioned this in the first paragraph, but stress the urgency of climate change more to strengthen your reason for pursuing this major.

C.G.