***Explain, in detail, an experience you've had in the past 3 to 4 years related to your first-choice major. This can be an experience from an extracurricular activity, in a class you’ve taken, or through something else. (150 words)***

During physics class, I was so fascinated by how airplanes require thrust to generate lift and how race cars need drag to handle the corners that I decided to do my Internal Assessment on it. I wanted to see whether different wing sizes would affect the amount of downforce produced. This experience expanded my knowledge on how aerodynamics play a vital role in race cars.

I think you can elaborate on how your experience in doing the IA deepened your passion and any other extracurriculars related to this field that you have done. Personal projects or non-school related organizations/activities count as well.

***Describe your personal and/or career goals after graduating from UIUC and how your selected first-choice major will help you achieve them. (150)***

It has always been my dream to design and build advanced Formula 1 cars. To make sure I actualize my ambitions, I must learn the concepts of aerodynamics, which fits in Mechanical Engineering. By learning the properties of moving air and the interaction between the air and the vehicle, I can understand how downforce works and whether or not we can create more downforce without a corresponding increase in drag. One of the ways I can solve this problem is by joining UIUC’s Formula SAE team, Illini Motorsports, where I can experiment and compete to create the ultimate Formula car and eventually work my way to becoming an F1 engineer.

Is your main goal in aerodynamics to learn about downforce? If so, are there also any instructors that will guide you in the right direction?

***You have selected a second-choice major. Please explain your interest in that major or your overall academic or career goals. (150)***

Systems Engineering & Design

Though there are a lot of brands that offer aftermarket performance parts like a Turbo, I want to develop my own brand of modification parts. It requires systems engineering and design knowledge to plan and manufacture the components. I would also learn how to make these components reliable in real-life applications. Since I want my brand to be profitable, I must also practice my entrepreneurship skills. By studying this major, I can learn to manufacture automotive parts while gaining knowledge on how to market them.

What are the modifications that you want to create and how are they unique? Any academic goals that you want to achieve?