Why are you drawn to studying the major you have selected? Please discuss how your interests and related experiences have influenced your choice. Specifically, how will an education from the College of Agriculture and Life Sciences (CALS) and Cornell University help you achieve your academic goals? (Please limit your response to 650 words.)

In an age where health is of utmost importance and in the highest demand, I believe that studying food science will allow me to develop tasty yet healthy consumables that can encourage more people to adopt a healthy lifestyle. Growing up, my parents always emphasized the importance of personal health through maintaining a good diet. Through understanding the benefits of maintaining a healthy diet, I became enthusiastic about developing consumables that are able to improve the nutrition of my surrounding community.

During the summer break, I attended a research internship program at a local university, I3L. There, I followed in the footsteps of a Food Safety professor in the dairy science course. Through the course of a month, not only did I learn standard lab protocols and dairy science theories, but I also managed to access the industrial-grade machinery and get practical experience. In particular, I was very interested in the HTST (High-Temperature Short-Time) milk pasteurization machine, which was used to sterilize raw cow’s milk. Using this pasteurized milk, I discovered the different methods of fermenting yoghurt and producing mozzarella, processed cheese, as well as ice cream. By making these dairy products, I learned not only the foundations of food science but also experienced firsthand being in a university-level course and working as an undergraduate researcher. Through this research experience, I believe that I have developed the inquisitive attitude and quick hands-on learning skills to prepare me for a successful time in university. Hence, I am excited to be part of a bigger community that embraces this field of study.

After gaining basic knowledge about creating dairy products, I became more passionate about food science and desired to replicate some of the experiments I had carried out at the university. As a child, I was a huge fan of yoghurt, and ate it almost every day. Because I was also interested in how probiotics can diversify our gut microbiome and improve digestive health, I decided to try to replicate the yoghurt experiment at home. However, with the limited resources and equipment available at home, I had to think creatively to make the yoghurt.

Unfortunately, my first batch did not come out like commercial yoghurt. The anaerobic respiration replicated the desirable tangy flavor, but I was unable to recreate the thick, creamy texture that yoghurt is well-known for. The lack of thickening agents is what most likely caused this. I learned that some commercial brands of yoghurt incorporate xanthan gum or carrageenan in their products to recreate the creamy texture. This experiment made me realize that I want to learn more about the science behind fermentation and the role of probiotics in the human diet, as well as how the commercial production of food can be optimized to be healthier.

I believe that CALS can provide me with the resources I need to fully realize my potential and creativity as a food science major. Interested in the field of dairy science, I am excited to be involved in the Cornell Dairy program to conduct research on dairy products among like-minded peers. In particular, I am interested in joining the Novel Food Processes and Engineering research program, as I am not only prompted by engaging in ongoing research about the chemistry of food particles but I also believe that my passion and creative thinking will allow me to contribute to the development of new and exciting food and beverages.

Overall, I believe that Cornell will best prepare me for a career in the food industry. I am very eager to be a part of the Cornell community to develop the right attitudes, skills, and knowledge to be successful. Through receiving an education from the food science undergraduate program, I am confident that I will be able to make my mark in the industry as a Cornell graduate.

Word count: 635