**Explain your interest in the major you selected and describe how you have recently explored or developed this interest inside and/or outside the classroom. You may also explain how this major relates to your future career goals. If you're applying to the**[Division of General Studies](http://dgs.illinois.edu/)**, explain your academic interests and strengths or your future career goals. You may include any majors or areas of study you're currently considering. (300 to 400 words)**

*A malfunctioning ammonia sensor and automatic feces cleaner*: the farm figured it out too little too late. Not until after several batches of chickens contracted disease making them *unfit* for the food industry and leaving my parents’ poultry farm in a huge deficit right before my internship there.

I’ve been visiting the farm regularly either to pick-up and drop-off my parents or to observe its operations, and everything is always in tip-top shape. The incident put a dent in the farm’s finances, but not enough to bring the farm down. I was stunned how a single pair of equipment malfunction could cause a large-scale setback. I scoured the web to gain insights on supply chain, logistics, and operations. Reading journals about poultry farm operations, I found Industrial Engineers who performs failure analysis and optimizes manufacturing processes using Math; I was obsessed.

The Grainger College of Engineering’s Industrial engineering curriculum would further my dream to scale-up my parents’ farm through effective problem solving of integrated systems. The Facilities Planning and Design course would provide me with the essential knowledge in facilities operation, logistics, and computational analysis that could prevent setbacks like automated system failures. Moreover, the Business Side of Engineering course would equip me with engineering economics and finance-based decision making skills to minimize loss resulted from operation failures.

The livestock industry revolves around the production of livestock, the Production Planning & Control Course would also serve as a source of inspiration allowing me to translate Engineering planning and control principles to enable smoother and more optimized manufacturing process of my parents’ poultry farm. I also hope to collaborate with Professor Xin Chen due to his expertise on Applications for Logistics and Supply Chain Management, in order to create innovative techniques to solve large scale optimization problems.

I believe that I would be able to thrive under UIUC’s innovative and diverse nature. Interning at the state-of-the-art Poultry Research Facility would enable me with practical knowledge in all aspects of poultry farm and research including production, environmental management, and biosecurity as well as emerging technological trends.

At UIUC, I would feel at Home as a Fighting Illini in their collaborative community to build, think, and hack our way to a bright future unbound by limitations.