Dear Lockheed Human Resources:

Can Lockheed Martin use the services of a third-year aerospace engineering student with a concentration in design and installation? With my experience in aerospace design, knowledge of drafting and drawing conventions, and proven leadership skills, I can serve you well.

My previous internship with Boeing, working on the Orion Program, provided me with exposure to efficient aerospace design, as well as that company’s approach to project development. Using PTC Pro-E, I coordinated with the design team to implement design changes to piece-parts on the Parachute Test Vehicle. I quickly learned how Boeing integrates design changes into the current assembly while maintaining iteration history for reference. To support the analysis team, I created a Finite Element Model for modal analysis of subassemblies within the Test Vehicle. I communicated these accomplishments with a technical presentation to the Landing and Recovery Systems team at the exit of my internship.

As an undergraduate research assistant, I developed a knowledge of drawing conventions as well as design for manufacture and assembly. Over the course of my research with the Shock Tube and Advanced Mixing Lab (STAML), I helped design and fabricate a test fixture to simulate various interfaces between two gases. In order to produce clear and sufficient drawings, I implemented Geometric Dimensioning and Tolerancing (GD&T) principles. I also learned a few basic machining techniques with the mill, lathe, and water-jet in the process of fabricating the fixture. This resulted in the successful development of the test fixture, which is still used to explore new and innovative initial conditions for shock tube experimentation.

Through my role as lead designer in my senior design project, I gained strong leadership and communication experience. Apart from biweekly meeting with our sponsor, Abaco Systems, we conducted Preliminary and Critical Design Reviews. As the lead designer, I presented and defended design decisions to an audience of experienced mechanical engineers. Effective communication with the customer, and appropriate delegation of design work were the keys to developing the best possible prototype. We presented our prototype at the Georgia Tech Senior Design Expo, and our Abaco Systems correspondents were very impressed with our design.

After you review my resume for additional information on my qualifications and experience, I will be happy to answer any questions you may have. Please contact me to discuss how my experience in aerospace design, knowledge of drafting and drawing conventions, and proven leadership skills can help as an employee of Lockheed Martin.

Sincerely,

Your Name