ANDI ZHOU

Canadian Citizen

1929 Plymouth Rd, Ann Arbor, MI andi.zhou1324@gmail.com (734)-881-4192

Dear Lockheed Martin Rotary and Mission System Team,

I can barely contain my excitement as I write this letter. My name is Andi. I am a Canadian citizen studying Aerospace engineering who just graduated Magna Cum Laude from the University of Michigan. From A-12, SR-71, F-22, and F-35 to the modern-day Defiant X that replaces the Black Hawk and the Orion space capsule that aims to take humans beyond Earth, I have been following your company's progress literally since elementary school. Thinking about working at Lockheed Martin just brings me goosebumps. After seeing multiple airshows in Toronto and Ann Arbor and countless visits to Smithsonian Air and Space Museums, your strive for quality, innovation, and, most importantly, the mindset to "dare mighty things" are what really makes me want to work here.

I believe I could be an asset to the team at RMS as an Aeronautical Engineer based on my experiences both working as a CFD Engineer Intern at Volvo Trucks North America and as an Aerostructure lead at the University of Michigan Rocketry Team, MASA.

As a CFD Engineer Intern at Volvo Trucks NA, I piloted the effort to analyze Gas-Liquid Cylindrical Cyclone (GLCC) separator using Star CCM+ multiphase flow. I was able to positively impact the company by internally publishing the first workflow ever presented at Volvo regarding GLCC optimization using CFD. In particular, I received recognition from my manager not only as a self-driven, fast learner but also thorough in my written reports and presentations.

Being the aerostructure lead at MASA, I led a group of 12 to design, analyze, and manufacture a 3 ft-wide, 4 ft-tall fin assemblies for a hypersonic, spacefaring rocket. Through complex aero-thermal-structural engineering analysis involving STAR CCM+ and ANSYS System Coupling, we were able to lower the assembly mass by 20 lbs while maintaining a structural SF of 1.5 at Max-Q.

To add to my passion for aerodynamics and numerical modeling, I single-handedly coded a CFD solver using MATLAB that employs the SIMPLE algorithm to solve the Lid Driven Cavity Flow. I added additional features such as an iterative Poisson solver and multi-grid and was the only one in my class to push the solver to a Reynolds number of 5000.

Thank you so much for your time and consideration. I believe my work experiences, coupled with my passion for aerospace and affinity for engineering simulations, would make me an asset to the aeronautical engineering teams at RMS. Thank you so much again, and Ad Astra!

Sincerely

Andi Zhou