

# ANDI ZHOU

1929 Plymouth Road, Ann Arbor, MI 48105  
andi.zhou1324@gmail.com  
(734)-881-4192

Dear Hiring Manager at Arista,

I imagine you might find a few aspects of my resume intriguing: an aerospace education with automotive internship experiences, and now applying to Arista as a thermal engineer?

Throughout my academic journey in aerospace and my internship experience in the automotive thermal realm, I have come to deeply appreciate thermal engineer's diverse challenges and applications, from aircraft to automobiles and down to every chip inside our daily electronics. Computing centers, much like aerospace and automotive systems, demand cutting-edge thermal solutions to maintain peak performance, and I am keen on diving into these superb challenges. I firmly believe that the rather unconventional blend of my experiences not only underscores my adaptability but also amplifies my capacity to bring innovative and effective thermal solutions to Arista!

Although the majority of my experience lies in a different industry, the fundamental laws of heat transfer remain universal. While my experiences might seem shorter, the depth, intensity, and outcomes of my internships and project experiences have equipped me with a skill set I am confident rivals that of many with more extended periods of exposure.

At Zoox, I revived a cooling system test rig that was stagnant for 2 years in just 9 weeks. My design recommendations, based on test data, increased the system flow rate by 7.5%. My manager highlighted my fast-paced work ethic and emphasized that I produced more data in 9 weeks than the project had in the previous 2 years. Meanwhile, at Volvo Truck, I designed a swirl air-coolant separation tank using Star CCM+, achieving a 99% separation efficiency and reducing its mass by 40% compared to the original concept.

To further my expertise in simulation, I implemented my own CFD solver for both Euler's equation of compressible flows and the incompressible Navier-Stokes equation. I firmly believe that as a thermal engineer, it's crucial to peek into the black box of contemporary CFD simulation software. In this project, I've implemented both the first and second-order finite volume methods, as well as the advanced Discontinuous Galerkin finite element method for both external and internal flows.

Arista Networks is undeniably the industry leader in cloud networking solutions. As the world transitions to an era marked by an ever-increasing reliance on high-performance computing, there will be much more stringent demands on thermal performance and reliability. I am eager to join Arista on this transformative journey.

Thank you for your consideration and looking forward to hearing from the team!

Sincerely,

Andi Zhou