ANDI ZHOU

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

Dear Hiring Manager at Apple,

Thank you for taking the time to review my application. My background, with its blend of aerospace education and automotive experience, may seem unconventional for a Thermal Engineer role at Apple. Yet, this unique combination has equipped me with a broad and adaptable skill set that I believe would serve Apple well!

At Volvo Truck, my foundation was built on safety, reliability, and an unwavering attention to detail. With Solar Ship, I was inspired by a mission that went beyond engineering—creating solar-electric airships designed for vital disaster relief in the most inaccessible regions. At Zoox, it was all about bold visions—the audacity to reshape the very notion of mobility. All my experiences express one central theme: engineering innovative products that embody meticulous precision, bold ambition, and a profound user focus. Apple, with its legacy commitment in creating intuitive, groundbreaking, and user-centric products, aligns seamlessly with my ethos.

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.

Further enriching my expertise in mechanical design and CFD software are my internships at Solar Ship Inc. and Volvo Truck North America. At Solar Ship, I developed an extendable yoke mount for an airship cockpit capable of withstanding an 11-G crash load with a safety factor of 2. 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 deepen my expertise in CFD, I took the initiative to implement a custom solver. Utilizing C++ and MATLAB, I integrated the first and second order Finite Volume Methods and later on added Discontinuous Galerkin techniques. A standout achievement from this project was my development of an adaptive meshing algorithm; responsive to specific parameters like cell edge length and Mach Number, the mesh automatically refines areas of high error.

Thank you for your consideration. My past experiences, though non-traditional, underscore my passion for engineering and a relentless drive for innovation and learning. I'm confident in my ability to contribute meaningfully to the team and am excited about the possibility of joining as a Thermal Engineer.

Thank you and looking forward to hearing back from the team!

Andi Zhou