

ANDI ZHOU

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Dear Hiring Manager at Westinghouse Electric Company,

I am writing to express my interest in the Reactor Internal Engineer position at Westinghouse Electric Company. With a company whose founder, George Westinghouse, revolutionized humanity's access to power and lit the age of electricity, I am driven to be a part of the next revolution in energy, harnessing power on an atomic scale.

Nuclear reactors demand the pinnacle of engineering solutions — arguably surpassing even more than the aerospace and automotive sectors. As the global energy landscape evolves and the call for sustainable, reliable power becomes ever more pressing, the challenge in engineering both smaller and more efficient nuclear generators is both a fascinating and critical problem. I am confident that my unique blend of experience in hands-on mechanical testing and simulation across different engineering disciplines not only underscores my adaptability in learning but also amplifies my capacity to bring innovative and effective thermal solutions to Westinghouse!

At my most recent internship, Zoox Inc, I built and operated a powertrain cooling system test rig. From the experimental data collected from my test plans, I not only validated the 1D simulation conducted previously by my team, but also made design recommendations which increased the system performance 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 controller 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+ multiphase flow, achieving a 99% separation efficiency and reducing its mass by almost 40%.

As we venture into a period marked by unprecedented levels of electricity consumption, the demand for dependable and greener power generation becomes ever more critical. I am convinced that my hands-on experience in thermal mechanical testing and validation, coupled with extensive work in engineering simulation, positions me as a valuable addition to the reactor engineering team at Westinghouse Electric Company.

Thank you for your consideration, I have attached my engineering portfolio which provides a pictorial description of all my projects mentioned above!

Sincerely,

Andi Zhou