Aerothermodynamics Analyst (Experienced)

Sandia National Laboratories

Location: Albuquerque, NM
Full-Time, Regular

What Your Job Will Be Like
We are seeking an Aerothermodynamics Analyst to support lab-wide efforts including flight vehicle development and flight test projects by performing research, capability development, and analyses in the field of aerothermodynamics. Opportunities exist to conduct research spanning multiple disciplines, including flowfield modeling, heat transport, ablation modeling, and aerosciences.

Key functions of this role include, but are not limited to:

- Analyzing proposed supersonic and hypersonic flight vehicles to determine general design and thermal protection needs
- Analyzing flight test data to determine vehicle thermal performance
- Developing new and extending existing aerothermodynamic analysis capabilities as needed to deal with constantly developing flight vehicle requirements
- Contributing to the development of future, high fidelity, state-of-the-art analysis capabilities for aerothermodynamic computations

This job is classified as an R&D Mechanical Engineer.

Qualifications We Require

- Master's degree in Mechanical Engineering, Aerospace Engineering, or other related engineering or natural science field
- Bachelor's degree in a related STEM field
- Two years' related experience
- Experience with fluid dynamics modeling
- Experience with the Linux operating system
- Experience with a high-level programming language such as FORTRAN, C, or C++
- Ability to obtain and maintain a DoE Q clearance

Qualifications We Desire

- PhD in Mechanical Engineering, Aerospace Engineering, or other related engineering or natural science field
- Experience with Matlab, Python, scripting languages and grid generation software
- Experience with parallel programming
- Experience/familiarity with Verification and Validation and Uncertainty Quantification
- Thorough knowledge of and applied experience with scientific and engineering methods and with discipline's standards for the ethical conduct of research
- Strong verbal and written communication skills and an ability to interact well with fellow technical workers with diverse technical backgrounds

About Our Team
The Aerosciences Department offers challenging and important work relating to national security in R&D and technology applications in aerodynamics, aerothermodynamics, compressible fluid mechanics, and flight dynamics. Our primary mission supports U.S. Department of Energy Defense Programs, and aerosciences projects funded through the U.S. Department of Defense, DARPA, NASA, and industry.

Our projects span the Mach number range from subsonic through hypersonic and involve systems ranging from aircraft released ordinance to reentry systems and rocket systems. Technical activities include experimental, analytical, and computational efforts plus support of flight test activities, both pre-flight/post-flight analyses and field test operations. The Aerosciences Department maintains a strong balance of research and development activities and works synergistically with other organizations at Sandia to meet current and future customer needs.

To Apply:
Visit:
sandia.gov/careers and search for job number **658090**

About Sandia:
Sandia provides employees with a comprehensive benefits package that includes medical, dental, vision, and a 401(k) with company-match. Our culture values work-life balance; we offer programs such as flexible work schedules with alternate Fridays off, on-site fitness facilities, and three weeks of vacation. In addition, Sandia/California enjoys close proximity to San Francisco, the Silicon Valley, first-tier universities, and diverse cultural and year-round recreational opportunities.

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation. We are a world-class team of scientists, engineers, technologists, post docs, and visiting researchers all focused on cutting-edge technology, ranging from homeland defense, global security, biotechnology, and environmental preservation to energy and combustion research, computer security, and nuclear defense.

Equal opportunity employer/Disability/Vet/GLBT