The Computational Fluid Dynamics (CFD) Laboratory of the Mechanical Engineering Department at the University of Wyoming is seeking a research scientist to conduct innovative research in the field of High Performance Computing (HPC) for extremely large-scale CFD and other physic-based multidisciplinary applications. As HPC continues to play an ever-larger role in today's science and engineering disciplines, a broad range of research avenues is available. The selected candidate will perform leading-edge research that will advance the state of the art in fluid dynamics computations on emerging heterogeneous HPC systems. A major responsibility of this position is to investigate, develop and demonstrate advanced multilevel solution strategies for leading-edge high fidelity simulation methods in CFD applications. Historically, multilevel methods have played a dominant role in CFD and their unique characteristics make them ideally suited for emerging HPC architectures. Novel scalable scientific algorithms are needed to enable CFD tools previously developed within this laboratory to exploit the massive computational power that is becoming available by emerging HPC systems. In particular, advanced algorithms that drastically increase the ratio of computation to communication are needed. The successful candidate will develop and implement automated scalable solvers that can be utilized in multi-solver frameworks.

Required Qualifications:

- PhD in mechanical engineering, computational engineering, applied mathematics or related engineering or science discipline.
- Proven experience in development and implementation of computational fluid dynamics (CFD) solvers.
- Practical knowledge of FORTRAN, C and/or C++ programming languages and UNIX operating system is required.
- Proven experience in parallel programming and utilizing cutting-edge high-performance computing, storage, and networking systems.
- Experience using modern mesh generation and visualization tools (such as Pointwise, FieldView, Tecplot).
- Strong communication skills are a must; be able to collaborate in a team but also think and work independently.

Required Materials

Complete a University of Wyoming on-line application including uploading the following as one document: cover letter, resume or CV and contact information for three work-related references.

http://www.uwyo.edu/hr/prospective/index.html; select the “Academic Job Listings” link which takes you to this site:

https://jobs.uwyo.edu/psp/EREC/UWEXTERNAL/HRMS/c/HRS_HRAM.HRS_CE.GBL?SiteId=6
Create an application account and follow the direction above.

The position closes 3/1/2017