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| |  |  | | --- | --- | | Experimental Fluid Dynamicist  - (ADV000330)  **Your Impact:**    Jacobs leads the global professional services sector delivering solutions for a more connected, sustainable world.  With $15.0 billion in combined revenue and a talent force more than 77,000 strong, Jacobs provides a full spectrum of services including scientific, technical, professional, construction- and program-management for business, industrial, commercial, government and infrastructure sectors. For more information, visit www.jacobs.com  Jacobs Space Exploration Group (JSEG) is comprised of 10 companies and is located at Marshall Space Flight Center in Huntsville, AL (ranked #11 in Best Places to Live by U.S. News). JSEG has been a primary contractor for NASA since 1989 and supports marquee NASA programs, including the Space Launch System, International Space Station, space optics fabrication, earth and space sciences and advanced propulsion system development. ***As a partner in NASA’s next generation of space exploration, our jobs are literally history in the making.***    **Position Description:**  The position is for an Experimental Fluid Dynamicist. The work will be application oriented involved with testing, data analysis, and modeling of propulsion fluid dynamical systems. Some program model development with Matlab will be required.   * Support cold-flow propulsion component testing with the view of dynamic system identification. This will involve in developing test requirements, planning the test, providing input in dynamical instrumentation, signal processing, and analysis. * Analyze complex features of the work and apply principles and practices of fluids analysis, or devise new approaches in problem solutions. * Independently plan, schedule and perform analyses, prepare and make presentations and document results in technical reports. * Participate in review and status meetings, analyze all results from assigned tasks and determine if outputs are complete, correct, integrated with project objectives, adequately documented, and meet stipulated deadlines. * Follow existing processes and procedures and recommend process improvements.     **Here's What You'll Need:**    **Qualifications:**  Education:  A degree in Mechanical, Chemical, or Aerospace Engineering or a related field is required.  A degree from an ABET accredited institution preferred.  Typically, educational requirements are the equivalent of a PhD, an MS with at least 3 years of experience, or a BS with at least 5 years of experience.  Required Experience:   * Digital signal processing * Experimental fluid dynamics * Fluid transient modeling * Lump parameter modeling   The Jacobs Space Exploration Group (JSEG) offers a partnership in which you can grow personally and professionally within a framework of strong leadership, competitive compensation, and rewarding career paths. Come join our team on the Engineering Services and Science Capability Augmentation (ESSCA) contract whose work is destined to have a long-range effect on future generations!  For more information on why Huntsville is known as “**one of the smartest cities in the nation**”, check out these websites:  • https://hsvchamber.org/  • www.Huntsville.org/  • https://www.movoto.com/guide/huntsville-al/moving-to-huntsville/  • https://realestate.usnews.com/places/alabama/huntsville  • https://iveyhsv.com/real-estate-blog/13-reasons-why-you-should-move-to-huntsville/    **Essential Functions**  **Work Environment:**  Office environment. Requires ability to provide clear, concise, accurate and timely communication, both verbally and in writing (100%). Requires ability to interact professionally with co-workers, management, and client (100%). Requires travel in the domestic USA (<10%).  **Physical Requirements:**  Requires sitting for extended periods of time in meetings with peers, management, and with our client at NASA facilities to discuss technical issues (10%). Also, requires sitting for extended periods of time at a desk to write reports and perform engineering tasks (80%). Requires ability to use stairs or elevators for access between floors and multiple buildings at NASA and Jacobs facilities (10%).  **Equipment and Machines:**  Requires ability to operate a personal computer, a telephone, fax machine, copier, calculator, and other general office equipment (100%).  **Attendance:**  Normal workday is from 7:30 a.m. through 4:30 p.m., Monday thru Friday. Minimal overtime may be required (10%) to meet schedule milestones and to support technical demands of the job. Regular attendance is a necessity and adequate arrangements for delegating duties during absences are required.  **Other Essential Functions:**    The ability to work independently with minimal supervision, and to make rational decisions, and to exercise good judgment is essential (100%). Grooming and dress must be appropriate for the position and must not impose a safety risk/hazard to the employee or others.    Proof of U.S. Citizenship is required.  #ESSCA   Jacobs is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, religion, creed, color, national origin, ancestry, sex (including pregnancy, childbirth, breastfeeding, or medical conditions related to pregnancy, childbirth, or breastfeeding), age, medical condition, marital or domestic partner status, sexual orientation, gender, gender identity, gender expression and transgender status, mental disability or physical disability, genetic information, military or veteran status, citizenship, low-income status or any other status or characteristic protected by applicable law. Learn more about your rights under [Federal EEO laws](https://www.dol.gov/ofccp/regs/compliance/posters/pdf/eeopost.pdf) and [supplemental language.](https://www.eeoc.gov/sites/default/files/migrated_files/employers/eeoc_gina_supplement.pdf)  **Primary Location**  **:** United States-Alabama-Huntsville-20320-MSFC  **Job Posting**  **:** Feb 28, 2022, 11:47:30 AM  **Job**  **:** Engineering  **Organization**  **:** CMS  **Job Type**  **:** Experienced  **Job Classification:** Fulltime-Regular  **Work Locations**  **:**  20320-MSFC  620 Discovery Drive   Huntsville 35806  **Capabilities:** Aerospace |  |     Share |
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[At Jacobs, we're challenging today to reinvent tomorrow by solving the world's most critical problems for thriving cities, resilient environments, mission-critical outcomes, operational advancement, scientific discovery and cutting-edge manufacturing, turning abstract ideas into realities that transform the world for good. With $13 billion in revenue and a talent force of approximately 52,000, Jacobs provides a full spectrum of professional services including consulting, technical, scientific and project delivery for the government and private sector.](https://jacobs.taleo.net/careersection/ex/jobdetail.ftl?job=ADV000330&tz=GMT-06%3A00&tzname=America%2FChicago)

Computational Fluid Dynamicist  - (ADV00032Y)

**Your Impact:**

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**Position Description:**

The position is for a Computational Fluid Dynamicist. The work will be application oriented using existing CFD tools for analysis, verification, and validation.

* Perform CFD analyses in support of liquid propulsion problems.
* Carry out numerical simulations with regard to vehicle launch environment, fluid slosh, debris transport, and vehicle loads due to operation under different operating conditions.
* Analyze complex features of the work and apply principles and practices of CFD analysis, or devise new approaches in problem solutions.
* Independently plan, schedule and perform computations/analyses, prepare and make presentations and document results in technical reports.
* Participate in review and status meetings, analyze all results from assigned tasks and determine if outputs are complete, correct, integrated with project objectives, adequately documented, and meet stipulated deadlines.
* Follow existing processes and procedures and recommend process improvements.

**Here's What You'll Need:**

**Qualifications:**

Education:

A degree in Mechanical, Chemical, or Aerospace Engineering or a related field is required.  A degree from an ABET accredited institution preferred.  Typically, educational requirements are the equivalent of a PhD, an MS with at least 3 years of experience, or a BS with at least 5 years of experience.

Experience:

* Some CFD program model development will be required.
* At least 2 years’ experience in using CFD program/s for engineering applications is preferred. This could be part of the Master’s thesis work.
* Some experience in object-oriented programming is a plus.
* Experience with the Loci framework, and CFD applications LociChem and/or Loci-Stream CFD programs is preferred.

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Combustion Instability/Acoustics Engineer  - (ADV000334)

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**Position Description:**

The position is for a Combustion Instability/Acoustics Engineer. Specifically, the work involves performing analyses in support of the design and verification of liquid rocket engine and solid rocket motor generated acoustics and combustion instabilities.

* Analyze complex features of the work and apply and practices of acoustics analysis, perform high frequency data processing and signal analysis of acoustic data, or devise new approaches in problem solutions.
* Independently plan, schedule and perform computations/ analyses, prepare and make presentations and document results in technical reports, and support test and high frequency data collection activities as needed.
* Review all results from assigned tasks and determine if outputs are complete, correct, integrated with project objectives, and adequately documented.
* Follow existing processes and procedures and recommend process improvements where appropriate.

**Here's What You'll Need:**

**Qualifications:**

Education:

A degree in Mechanical, Chemical, or Aerospace Engineering or a related field with a Ph.D., a Masters degree with thesis and with at least 2 years of relavent experience, or a BS with at least 6 years of experience in combustion instability/acoustics analysis required. A degree from an ABET accredited institution preferred.  Typically, educational requirements are the equivalent of a PhD with at least 4 years of experience or an MS with at least 8 years of experience, or a BS with at least 10 years of applicable experience. Applicants nearing completion of their PhD/MS programs are encouraged to apply.

Experience:

* Excellent written and verbal communication skills required.
* MS/PhD degree in Engineering or related field from an ABET accredited institution is preferred.
* Some experience with Matlab programming is preferred.

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