Structural Engineer

Date: Apr 23, 2024

Requisition ID: 2
Location: Remote
Travel Requirements: Low
Job Overview & Responsibilities:

- Performing stress, fatigue, and fracture analysis for structural components, including non-linear and buckling analysisPerform hand calculations and create analysis models while using best practices to provide guidance for new designs, installations, ground, and handling equipment.
- Review and approve 2-D & 3-D engineering models, designs and drawings and design changes for a variety of propulsion, fluid, and mechanical components.
- Provide design guidance with thermal, mechanical, and pressure loading using appropriate material properties, hardware configurations, and required safety factors, etc.
- Document results in stress analysis reports.
- Support fast-paced design analysis cycles and evaluate hardware to support production.
- Work independently and communicate efforts to teammates and stakeholders.
- Assist in creating analysis automation tools, future task planning, and providing status
- Participate in customer design reviews and may be expected to present analysis products.

Required Years of Experience & Education:

- Minimum of three years of related work experience with a Bachelor's degree in Aerospace or Mechanical Engineering from an accredited college or university.

Basic Qualifications:

- Ability to make design recommendations based on experience and analysis results.
- Experience with structural analysis on flight and propulsion hardware (tanks, adapters, brackets, tubing, ducting, flex joints).
- Experience analyzing primary and secondary structural components.
- Understanding of the following analysis topics, software tools, and/or processes:
  - Analysis best practices and underlying assumptions
  - Basic hand calculations
  - Statics and mechanics of materials
  - Material properties
  - Bolted joint analysis and modeling
  - NASTRAN (Static, Modal, Dynamic and Non-Linear Analysis Solutions)
  - FEMAP pre/post processor
  - Matlab
  - MathCad
  - NX CAD/Simulation
  - Unix/Linux mainframe based analysis tools
  - Python
  - Manufacturing and fabrication methods for mechanical hardware, such as machining, welding, processing and assembly.

Preferred Qualifications:

- MS or PHD in Aerospace or Mechanical Engineering from an accredited college or university
- Minimum of 5 years of related work experience
- GD&T standards and principles
- Static/dynamic testing and model correlation
- Exposure to Agile Framework tools suite
- Structural optimization techniques for mass savings
- Integrating with system level analysis models (coupled loads models)
- ABAQUS
- NASGRO fracture mechanics tool

Summary Salary Range: $85,000.00 - $175,000.00

We offer our employees competitive pay and benefits including:

- 401(k) match plus an additional employer contribution
- Stock options vested after three years of service for eligible employees
- 120-160 hours of paid time off
- Flexible remote work schedule with office supplies provided

The salary & benefits information above is for reference only. Final offers will be based upon a candidate's experience and qualifications.

International Traffic In Arms Regulations (ITAR). This position requires use of information which is subject to the International Traffic in Arms Regulations (ITAR). Therefore, all applicants must be U.S. Persons as defined in ITAR 22 CFR 120.62 (e.g., U.S. Citizen, Lawful Permanent Resident (Green Card holder) or protected individual. See 8 U.S.C. 1101(a)(20) and 8 U.S.C. 1324b(a)(3) for additional information).