STRESS ENGINEER

PIC Specialists ("PIC") is an established and distinguished Professional Aerospace Program Management and Engineering Service Organization located in Dallas, Texas, USA. The PIC brand is about seamless integration, serving a wide range of aerospace entities - from Major airlines and operators to MROs and small-to-midsize OEMs - PIC represents a unique blend of innovative problem-solving and actionable resources.

As part of our organization's strategic growth plan, PIC is setting up a Program and Engineering Support Office to be located in Pretoria, South Africa. Since this Satellite Office will form a key element in the service solutions PIC offers its customers, it is detrimental that we employ individuals who bring specific skill sets to join this new team.

We're seeking a highly motivated candidate with experience in stress analysis. The engineer will be responsible for the substantiation of various structural and interior commercial aircraft commodities and aircraft systems using classical, empirical, and finite element analysis (FEA) methods. The stress analyst must also be able to effectively communicate technical requirements, analysis and findings to Customer Support Leadership, Global Partner Teams, and Interfacing Stakeholders.

PayScale and Benefits:

At PIC, we care deeply about the wellbeing of every employee. Some of the benefits open to you include:

- Market competitive salary and incentive/bonus program
- Flexible working hours
- Medical Plan
- Benefit from Employee Recognition Program
- Enjoy and build a friendly and inclusive atmosphere in the workplace.
- Cooperate and exchange knowledge with world class global engineering team.

Position Responsibilities:

- Perform and document structural analysis of both Structural and Interior commodities like Aircraft Primary and Secondary Structures, Equipment Racks, Galleys, Lavatories, and Seats and Systems Stress commodities.
- Understand and show compliance with applicable FAA and EASA regulations and requirements for certification.
- Create and validate Finite Element Models from 3D CAD models with appropriate modeling assumptions and carry out the analysis of composite panels, inserts, metal bracket, fittings, tab and slots, and adhesive joints.
- Substantiate appropriate structures though classical hand analysis.
- Determine and predict potential failure modes for analysis.

- Coordinate and consult with other teams such as design, proper allowable groups, and teams of interfacing commodities to support in the creation, development, and proper analysis of structural designs.
- Review drawings of parts and assemblies to show substantiation through test, analysis, or similarity methods.
- Lead and collaborate with Global Partner Stress Analyst teams to provide 24/7 Customer Support.

Basic Qualifications (Required Skills/Experience):

- Bachelor, Master, or Doctor of Science degree from an accredited course of study, in engineering, computer science, mathematics, physics or chemistry
- 3+ years of experience using linear and nonlinear statics Finite Element Analysis
- 3+ years of experience with efficient load paths and structural behavior
- 3+ years of experience with statics and structural analysis using classical, empirical, and finite element methods.
- Ability to support occasional domestic or international travel to support our customers.

Preferred Qualifications (Desired Skills/Experience):

- Experience working with the following FEA pre and post processing tools: HyperMesh, HyperView, NASTRAN, and PATRAN
- Experience validating or verifying structural models.
- Experience with structural design principles for aircraft primary structures, secondary structures, interior payloads.
- Proven experience working with and partnering with multi-functional teams.
- Comfortable working in a matrix environment, using collaborative relationships to achieve goals.
- Active collaborator with US Leads and constant demonstration of high performance which helps us to get a more complicated statement of work.
- Knowledge of the LEAN basics.
- Demonstrates good problem-solving skills and critical thinking.
- Solid communicator, fluent in both written and verbal English.
- Experience in project management (planning, monitoring, reporting).
- 4+ years of experience working with 3D CAD models and engineering drawings.