

SAFE Inc. is customer focused, results based engineering firm providing technical services such as stress, design and construction, fatigue and damage tolerance analysis for the aviation industry. We provide comprehensive engineering and maintenance support to the Department of Defense, commercial airlines, and major overhaul and repair facilities. Support includes evaluation and approval of repairs and modifications, evaluation of process specifications and development of specialized installation and tooling procedures. Engineers at SAFE possess an in-depth working knowledge of all aspects of the DoD research, development, testing and evaluation (RDT&E) effort; basic research, applied research, advanced technology development, demonstration / validation, and engineering / manufacturing development (technology transition). SAFE's work also includes engineering research for the United States Air Force Academy's Center for Aircraft Structural Life Extension (CASTLE). **SAFE Inc.** is a *Service Disabled Veteran Owned Small Business (SDVOSB)*. www.saf-engineering.com.

Position Description:

SAFE Inc. has an opening for a *Junior Mechanical or Aerospace Structural Engineer* to support research and development activities in the areas of mechanical test and analysis, aircraft structures analysis and test, fatigue crack growth, additive manufacturing using supersonic particle deposition (SPD) and failure analysis of metallic components.

Work Location: Monument, Colorado and USAF Academy, Colorado

Annual Salary: \$50,000 – \$100,000 (salary)

The ideal candidate will:

- Be passionate about providing structural analysis and design support for air, land, and sea vehicles and manufacturing processes specific to metallic components
- Be energized by working for a world-class R&D provider and collaborating on cross-functional teams
- Recognize the importance of building and maintaining strong interpersonal relationships

Responsibilities include:

- Evaluating the suitability of air, land, and sea vehicles and components utilizing standard test methodologies as well as coordinating the development of unique test methods
- Recommending, executing and communicating appropriate test plans to demonstrate acceptable corrosion resistance of air, land, and sea vehicles
- Defining and communicating scope of work and experimental intent, concluding on scientific work and sharing learnings with other groups
- Designing, executing, and analyzing experiments based on statistical techniques
- Developing and recommending new and state-of-the-art materials and processes for air, land, and sea vehicles
- Identifying critical uncertainties and the overall approach to address each uncertainty
- Working with external suppliers of raw materials, components, processes, and testing
- Documenting work via reports, technology notebooks, and design file entries
- Maintaining awareness and control of intellectual property

Qualifications:

Required Job Qualifications:

- A Bachelor's degree in Mechanical/Aerospace/Aeronautical Engineering (or related science) with an emphasis on structural analysis
- A strong understanding of Linear Elastic Fracture Mechanics (LEFM)
- Demonstrated ability in the development and execution of experiments, testing, data analysis and documentation of results
- Demonstrated ability to prioritize, initiate, and drive projects to completion
- Ability to clearly communicate ideas, concepts, and conclusions to both highly technical and

- non-technical associates
- Solid knowledge of engineering fundamentals and ability to apply this knowledge to manufacturing, product design, and structural analysis
- Working knowledge of the fundamentals of statistics
- Ability to work in a hands-on environment during all phases of projects
- Strong mechanical aptitude
- Ability to work effectively in team situations as well as independently
- Ability to network and interact effectively with a broad range of associates spanning varied disciplines and responsibilities, including both internally and externally
- Ability to travel periodically (~10%)
- Must have the legal and ongoing authority to work in the US

Desired Job Qualifications:

- Recent experience with aircraft structural analysis using conventional and computer-aided techniques, including damage tolerance analysis
- Working experience with metallic air, land, and sea vehicles materials such as 2XXX, 5XXX, 6XXX, and 7XXX series aluminum alloys and stainless steel alloys
- Experience with mechanical testing including tensile and fatigue testing
- Designing, building, and testing prototypes
- Working knowledge of drawings, specifications, and dimensional tolerances
- Experience driving design transfer activities

Application Notes:

Please submit a cover letter and resume with references to rtb@saf-engineering.com

Position will remain open until filled.